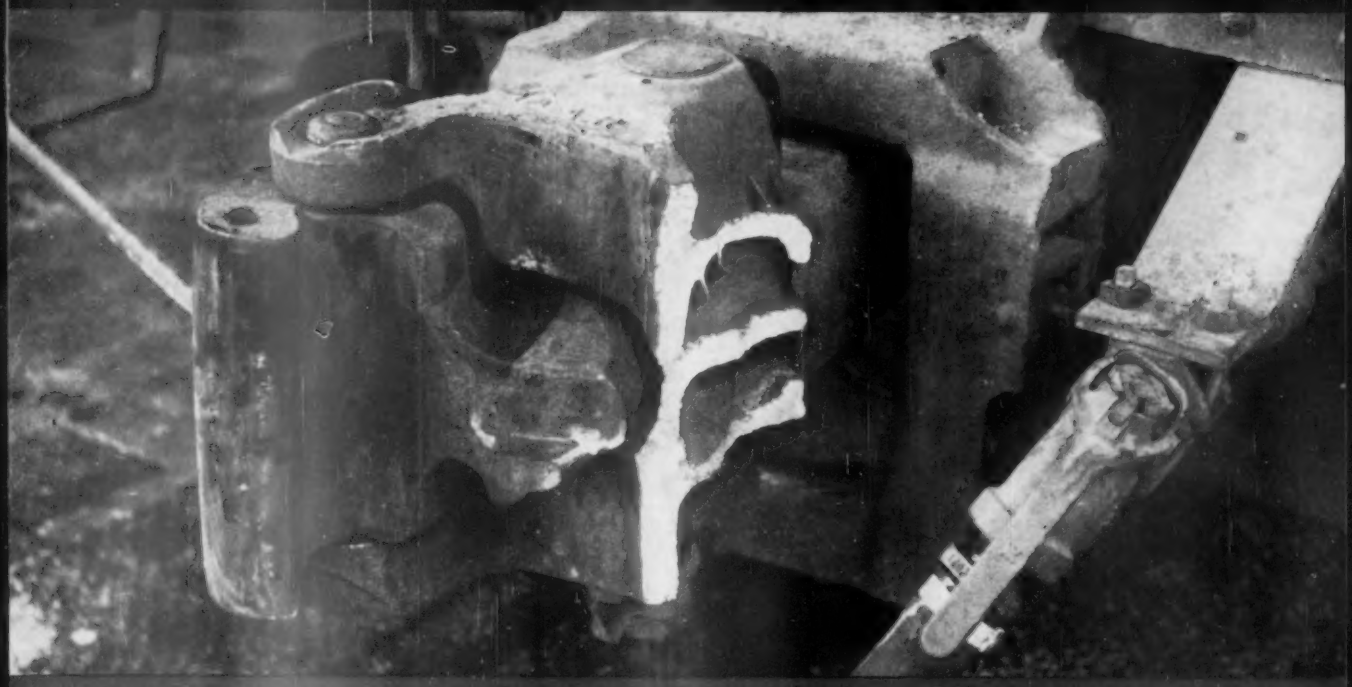
Electric Eye Catches High Loads on NYC

June 13, 1960

RAILWAY AGE *weekly*



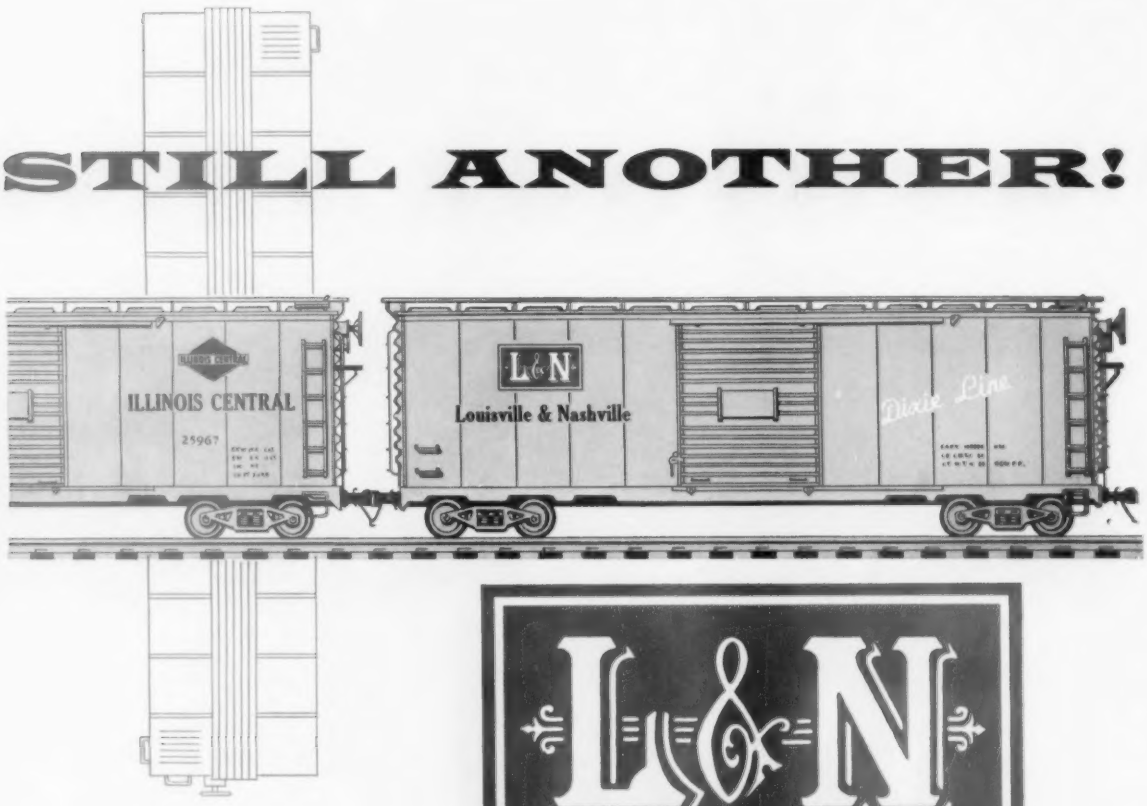
EXAMPLE: A sound coupler sheared by impact

High Cost Of Car Damage

...p. 18

60 cents A Simmons-Boardman TIME-SAVER Publication

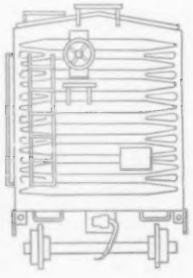
STILL ANOTHER!



L&N

USES PRESSURE-TREATED GUM DECKING

for . . .		IN BOX CARS
	long service life	
	high impact strength	
	resistance to wear	



Another railroad, the Louisville & Nashville, has turned to salts treated gum decking. It recently completed a program of rebuilding a fleet of boxcars with Wolmanized® treated black gum flooring. A large re-order resulted from the satisfaction with this program. Here are the reasons:

- Gum lumber is the toughest, most abrasion-resistant species commercially available.
- Pressure-treatment gives gum decking longer service life by providing protection against decay, the underlying cause of wood failure.
- Pressure-treated gum decking has proved it can take a day-by-day beating from lift trucks and all types of lading.

If your railroad would like to benefit from the substantial savings possible through the use of treated decking, ask your Koppers representative for additional cost information and assistance, or write us at 761 Koppers Building, Pittsburgh 19, Pennsylvania.

Want the Full Story of how to Save Your Road up to $49.00 Per Year Per Car?

This 12-page booklet gives the "dollars and cents" facts on how your railroad can save thousands of dollars per year with pressure-treated wood. Write for a copy.

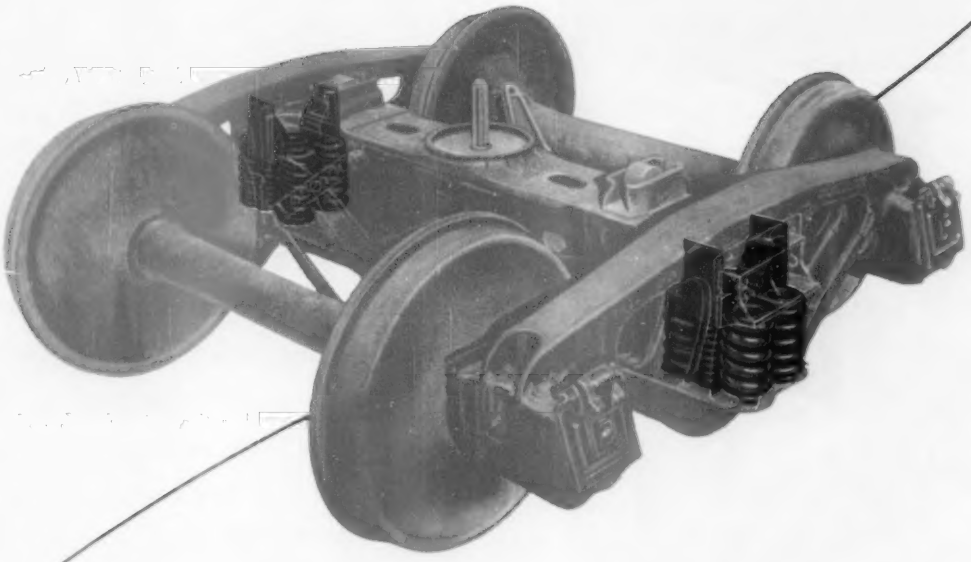
KOPPERS

KOPPERS
PRESSURE-TREATED
WOOD

T-11

Wood Preserving Division, Koppers Company, Inc., 761 Koppers Building, Pittsburgh 19, Pa.

BARBER STABILIZED TRUCKS



over the miles, over the years— design that conquers distance

Barber stabilized trucks are designed to give hundreds of thousands of miles of dependable operation even under the worst possible handling and travel conditions. Friction shoes, wear plates, springs are all built to take this mileage with ease while protecting the frame and bolster.

You can service Barber trucks many times faster—with resulting maintenance savings. Compare and you'll find first costs give you a decided advantage, too!

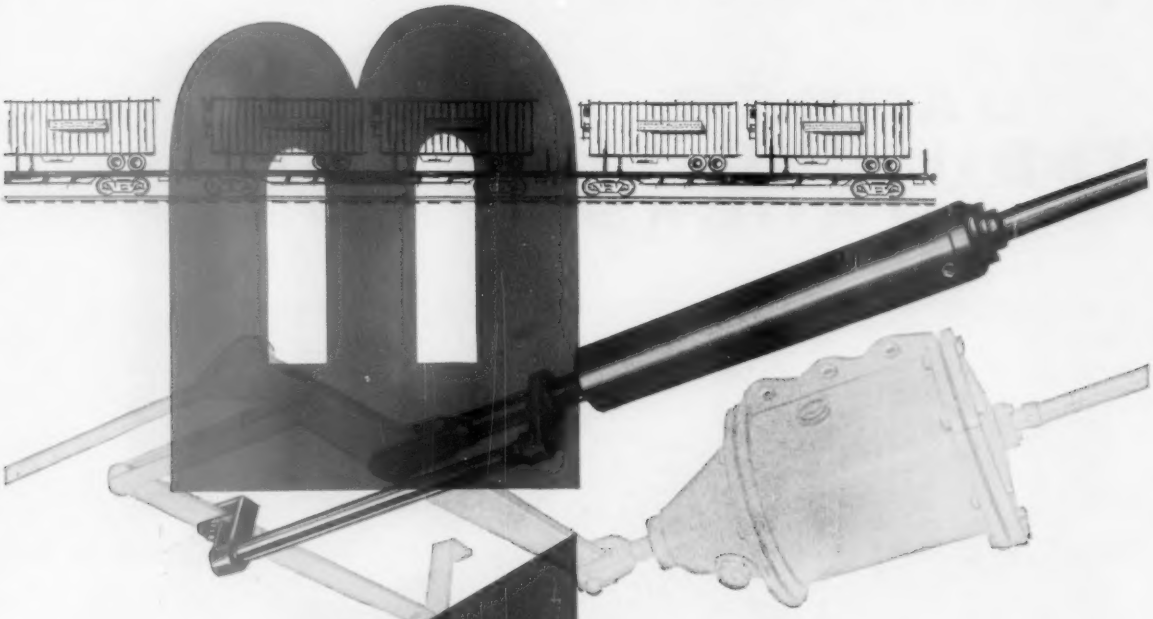
Standard
CAR TRUCK COMPANY

BARBER

Manufacturer of
BARBER Stabilized Trucks
and center sill Cushion Tubes
Distributor of
CLEVITE Cartridge Bearings

332 South Michigan Avenue, Chicago 4, Illinois • Canada: Consolidated Equipment Co., Ltd., Montreal 2

9281A



S A B exclusive fully automatic double-acting Brake Slack Regulators eliminate need for manual manipulation and will assure generous savings in terminal servicing and expediting of day-to-day train movements. Distinctive two-way action of S A B Automatic Brake Regulators makes it possible to completely regulate ALL slack variations for efficient transmittal of braking power to the brake shoes. For full information on S A B Automatic Brake Regulators write...

AAR APPROVED

Visit SAB Booth No. 168
Allied Railway Supply Convention
Sherman Hotel, Chicago
Sept. 20-23

PRI MEMBER

SAB

AMERICAN S A B COMPANY, INC.

332 SOUTH MICHIGAN AVENUE
CHICAGO 4, ILLINOIS

RAILWAY AGE *weekly* June 13, 1960 • Vol. 148, No. 24

Week at a Glance

Departments

Current Questions 15
Dividends Declared 91
Freight Carloadings 99
New Equipment 99
Railroading After Hours 40
Letters from Readers 86
New Products Report 80
People in the News 88
Railway Market 99
The Action Page 106
Watching Washington 10
Supply Trade 89
You Ought to Know 103

• Editorial and Executive Offices New York 7, 30 Church St.

JAMES G. LYNE, Editor
ROBERT G. LEWIS, Publisher
Executive Editor .... Joe W. Kizzia
Managing Editor .... Fred C. Miles
News Editor ..... Luther S. Miller
Traffic-Transportation .. G. C. Hudson
Mechanical
C. L. Combes F. N. Houser, Jr.
Signaling & Communications
Robert W. McKnight Robert J. Barber
Associate Editors
Rod Craib Harry M. Grayson, Jr.
Librarian ..... Edith C. Stone
Editorial Assistant .... June Meyer
Art Director.....Russell F. Rypsam
Design and Layout .. Joel Petrower
Production Manager..Joseph J. Menkes

• Chicago 3, 79 West Monroe St.
Western Editor ..... Gus Welty
Regional News.....William V. Tuite
Mechanical .... Norman E. Gillespie
Engineering ..... M. H. Dick
R. E. Dove E. W. Hodgkins, Jr.
Purchases & Stores .... Bert Enos
Editorial Assistant .. Wanda Brown

• Washington 4, National Press Bldg.
Washington Editor .. Walter J. Taft

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn. Second-class postage paid at the Post Office at Orange, Conn. James G. Lyne, chairman of the board; Arthur J. McGinnis, president and treasurer; Duane C. Salisbury, executive vice-president; George Dusenbury, vice-president and editorial and promotion director; Robert G. Lewis, Joe W. Kizzia, M. H. Dick, M. J. Figa, R. C. Van Ness, vice-presidents.

Wage award revives rules issue ..... p. 9

Pay hikes either granted or recommended make it more necessary than ever to eliminate featherbedding waste, in management's view.

Cover Story—How to reduce your car damage p.18

The annual cost of freight-car maintenance has been put at about $750,000,000. A major portion of this expense comes from repairing damage caused by overspeed impacts. Here's what railroads, and their equipment suppliers, are doing to correct the situation.

Automated transit comes closer p.36

Philadelphia has completed a $5,000,000 improvement project on its Broad street subway line. The project included a new signal system that provides for automatic routing of trains.

New lighting lets TOFC yard work round-the-clock p.42

The close work of loading and securing piggyback trailers requires high-grade lighting facilities. The PRR tells how it handled the problem at its busy Chicago TrucTrain terminal.

Superintendent: RR's 'key man' p.47

Management's obligations to the "super" were spelled out by Wabash President Pevler at last week's annual meeting of the American Association of Railroad Superintendents.

'Positive' PR program urged p.50

Have railroads been so busy reciting their woes to the public that they've failed to put across the good, "positive" story the industry has to tell? That this may be the case was indicated by speeches at last week's Railroad Public Relations Association convention. Consensus was that the industry should be pictured as doing the best it can with what it's got.

REA president is optimistic p.63

The head of Railway Express thinks the Agency is moving, at last, toward prosperity. The alternatives, as he sees them, are liquidation or nationalization.

ICC to discuss rate policy p.70

The Commission is scheduled to be heard this week by a Senate subcommittee looking into competitive rate-making trends.

THE POWER TO STOP SHOCKS CUT DAMAGE CLAIMS

MARK 80...the bigger, tougher, 77,320 foot-pound capacity Gear...has the built-in *power* to *cut* your damage claims. The MARK 80 is the right Gear for stopping today's overspeed impacts *before* they reach the car body and lading!

The heavier stresses and strains of modern traffic conditions require this better protection. You get OVER FOUR TIMES as much damage-reducing capacity as required by the A.A.R. in draft gears for *standard* pockets.

Reduce damage claims; cut car repair costs! Specify the MARK 80 Draft Gear. It's your best answer!

77,320 FOOT-POUND*

MARK 80

FRICTION DRAFT GEAR FOR 36-INCH POCKETS

*With only 447,000 pounds of sill pressure, or reaction force. A.A.R. CERTIFICATE NO. 37.

For *standard* 24½ inch pockets, specify the Westinghouse Mark 40 (high capacity) Draft Gear...or Westinghouse NY-11-F Draft Gear.

CARDWELL WESTINGHOUSE COMPANY

332 South Michigan Avenue, Chicago 4, Illinois • Canadian Cardwell Co., Ltd., Montreal 18, Quebec

Week at a Glance CONT

Current Statistics

Operating revenues	
4 mos., 1960 ...	$3,234,559,129
4 mos., 1959 ...	3,246,255,701
Operating expenses	
4 mos., 1960 ...	2,547,246,510
4 mos., 1959 ...	2,561,979,109
Taxes	
4 mos. 1960 ...	360,571,999
4 mos., 1959 ...	342,591,970
Net railway operating income	
4 mos., 1960 ...	211,989,020
4 mos., 1959 ...	236,919,680
Net income estimated	
4 mos., 1960 ...	147,000,000
4 mos., 1959 ...	162,000,000
Average price railroad stocks	
June 7, 1960 ..	95.00
June 9, 1959 ..	106.88
Carloadings, revenue freight	
21 wks., 1960 ..	12,626,113
21 wks., 1959 ..	12,881,753
Freight cars on order	
May 1, 1960 ...	41,003
May 1, 1959 ...	35,479
Freight cars delivered	
4 mos., 1960 ..	19,429
4 mos., 1959 ..	10,964

Advertising Sales Department

Duane C. Salisbury—director of sales
New York 7, N. Y., 30 Church st., WOrth 4-3060
J. S. Vreeland—vice president;
F. T. Baker—district manager;
J. C. Lyddy—district manager
Chicago 3, Ill., 79 W. Monroe st., RAndolph 6-0794
J. R. Thompson—vice president;
J. W. Crossett—district manager;
Hale Carey
Cleveland 15, Ohio, 1501 Euclid ave., MAin 1-4455
H. H. Melville—vice president;
H. M. Blunt—district manager
Pittsburgh 19, Pa., Suite 203, Carlton House GRant 1-8186
C. J. Fisher—district manager
Atlanta 9, Ga., 22 Eighth st., N. E., TRinity 2-6720—J. S. Crane
Dallas 19, Tex., 3915 Lemmon ave., LAkeside 1-2322—Joseph Sanders
Los Angeles 17, Cal., 1336 Wilshire blvd., HUbbard 3-0390
Bayne A. Sparks—vice president
San Francisco 11, Cal., 244 California st., EXbrook 7-4990
D. S. Clark—district manager
London E.C. 1, Eng., 8/9 Clerkenwell Green
Sibley-Field Publishing Co., Ltd.
Frankfort am Main (16), West Germany
Wittelsbacher Allee 60
Georg J. Linder,
Tokyo, Japan
Shadan Hojin, 14
2-Chome Marunouchi
George E. Olcott

Railroad employees' subscription rate: in U.S. possessions, Canada and Mexico, $4 one year, $6 two years, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year. In other countries, $15 a year. Single copies 60¢ except special issues. Address all subscriptions, changes of address, and correspondence concerning them to: Subscription Dept., Railway Age, Emmett St., Bristol, Conn.

Change of address should reach us three weeks in advance of next issue date. Send old address with new, enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

Circulation Dept.: R. C. Van Ness, Director of Circulation, 30 Church St., New York 7, N. Y.

POSTMASTER—SEND FORM 3579 to EMMETT ST., BRISTOL, CONN.

Printed at the Wilson H. Lee Co., Orange, Conn.

Suburban transit: more relief p.73

Railroad commuter service got helpful boosts from two states last week. New Jersey's Assembly sent Governor Meyner a $6,000,000 bill to buy suburban service from nine railroads. New York began procedures to implement tax cuts for railroads in the state.

Piggyback fleet: 85,000 cars by 1970? p.74

The prediction was made during a panel discussion that wound up the 34th convention of the P&S Division. It's based on an estimate that piggyback traffic will account for 25% of the total rail ton market by 1970.

Cover Story—NYC's electric eye catches high loads p.94

The detector, materials for which cost less than $500, was installed to help reroute high loads around a low-clearance bridge. Additional detectors will be installed elsewhere on the system.

The Action Page p.106

How about some more freight cars?—There are two good reasons for buying cars now: Business conditions are expected to improve in the fall, and steel prices may go up around the first of the year.

Cross off the box car?—The economic advantage of the car as a transport tool is seldom systematically exploited. It can still do a job of building siding-to-siding hauls of heavy loads.

Short and Significant

Decline of $15 million in net income . . .

of Class I railroads is estimated by the AAR for 1960's first four months, compared with the corresponding 1959 period. The estimate puts this year's four-months' net at $147 million, compared with $162 million last year. All but $1 million of the decline was accounted for by the decrease in April's estimated net, which was $48 million compared with $62 million in April 1959. Thirty-two Class I roads failed to earn their fixed charges in this year's first four months. Rate of return for the 12 months ended with April was 2.63%.

Thirteen railroads are now scheduled to participate . . .

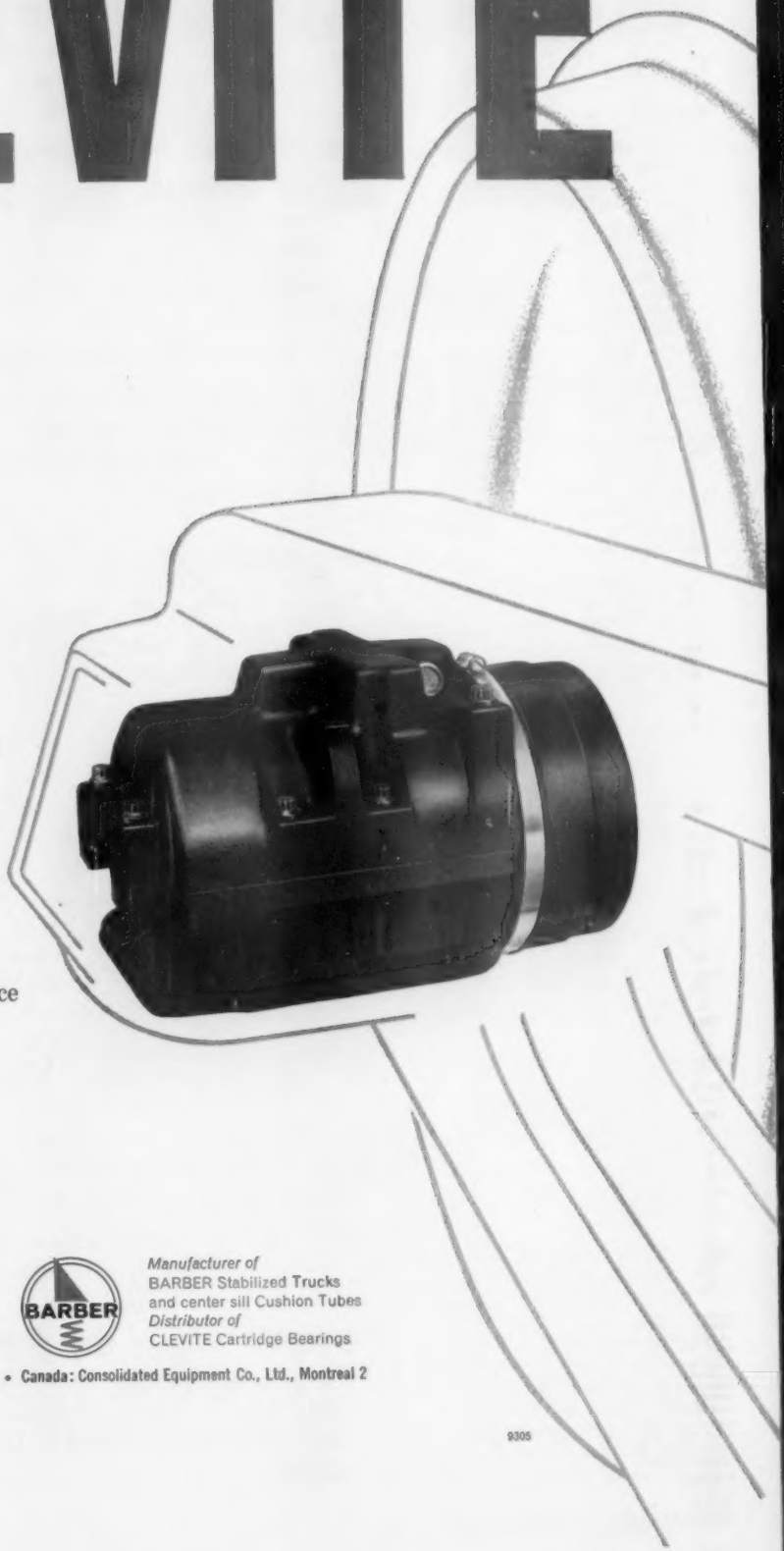
in missile-train dry runs scheduled for this summer (RA, May 9, p. 9). The participating roads: UP, SP, WP, D&RGW, NP, GN, CGW, DM&IR, C&NW, Soo Line, IC, Milwaukee, CB&Q.

CLEVITE

means

Quality

Actual operating and laboratory tests have proved that superior performance is inherent in the Clevite cartridge bearing. It has withstood severe weather and over-the-road tests under the most rigorous conditions. Clevite represents the best thinking of many leading mechanical engineers plus the 40 years' experience of the largest and best known sleeve bearing manufacturer. Quality and a national service organization are its heritage.



Standard
CAR TRUCK COMPANY

BARBER

Manufacturer of
BARBER Stabilized Trucks
and center sill Cushion Tubes
Distributor of
CLEVITE Cartridge Bearings

332 South Michigan Avenue, Chicago 4, Illinois • **Canada: Consolidated Equipment Co., Ltd., Montreal 2**

9305

Wage Award Revives Rules Issue

► **The Story at a Glance: Award of a 4% two-stage wage increase to rail engineers—and the strong probability that this will be the "pattern" settlement —has thrown the work rules issue into sharp focus once again.**

Within 24 hours after an arbitration board gave a pay hike to employees represented by the BLE, the ORC&B accepted a similar settlement. Mediation efforts were being stepped up last week to win agreement on the same basis from the BLF&E and BRT.

The BLE arbitration award was a compromise that left both sides outwardly unenthusiastic. Its cost has been estimated at almost $200,000,000, if applied to all 126 classes of rail employees.

Meanwhile, in Washington, an emergency board recommended that non-operating employees be given a wage increase of five cents per hour and liberalized health and welfare, vacation and holiday arrangements.

U. S. railroads, faced with an additional $200,000,000 per year in labor costs, are renewing their drive for revisions in operating employees' work rules. It's that or raise rates, one industry spokesman pointed out—and many carrier officers have stressed the futility and danger in increasing rates in today's competitive transportation market.

The lead wage settlement, awarded to the Engineers and accepted a day later by the Conductors, provides that:

- Cost-of-living allowances in effect May 1, 1960, (17 cents) shall be included in and made a part of the then existing basic rates of pay.
- Cost-of-living provisions in the existing agreement are cancelled.
- Basic daily rates in effect Nov. 1, 1959, shall be increased 2% effective July 1, 1960, and an additional 2% on the same base effective March 1, 1961.
- All arbitraries, miscellaneous rates, special allowances, monthly and daily guarantees shall be increased in proportion to (and on the effective dates of) the increases in basic rates of pay.
- The award shall be effective until Nov. 1, 1961, and thereafter, until changed in accordance with provisions of the Railway Labor Act. No other wage increases or decreases shall be made effective before Nov. 1, 1961.

Applied to BLE-represented employees only, the ultimate increase will cost the railroads $13,863,828 annually. The same 4% pattern applied to all 126 classes of employees would increase the industry's wage costs by $196,576,432 annually.

(Estimates placed the average money-value of the 4% package at approximately 11-1/3 cents per hour for the Engineers and about 10-1/3 cents per hour for the Conductors.)

In the final agreement worked out by the six-man arbitration board, the organization lost on its demands for a 12% increase and continuation of a cost-of-living escalator provision. It succeeded in winning a lesser increase, in the face of carrier proposals to reduce wages; and it won incorporation of existing cost-of-living allowances into basic rates of pay.

Significantly, none of the increase awarded was made retroactive (agreement on deferred increases, in effect, follows the lead set in the recent steel wage settlement).

And the stipulation that no further changes in wages will be permitted until Nov. 1, 1961, creates a 17-month moratorium (from date of award) and clears the decks for consideration of the complex work rules issue.

Acceptance of the BLE pattern settlement by the ORC&B came as no surprise. The Conductors, at one time, were reported close to reaching a stand-by agreement, although no formal pact was ever signed.

None of the parties to the arbitrated wage dispute showed much enthusiasm for the outcome, although the award itself was unanimous.

Guy L. Brown, grand chief of the BLE, commented only that "we are happy with the award. It represents a 5½% increase over the rates of the last agreement."

ORC&B President James A. Paddock, whose organization gave the BLE award its initial boost as a pattern, said that "in view of the general situation and the Engineers' arbitration award, I felt that for the good of the industry and also of our organization it was time to settle. . . . However, I am somewhat disappointed in the effective dates and

Rules Changes: 'More Important Than Ever'

"This [arbitration] award, if applied to all classes of employees in the railroad industry, would cost the railroads an additional $196,576,432 per year. With traffic and revenues at depressed levels, this money simply is not available from railroad earnings and ways must be found to keep the industry solvent. It therefore becomes more important than ever that rail management and the operating unions work together to eliminate the enormous waste resulting from outdated and unrealistic work rules."

* * *

"The emergency board's findings in the non-operating wage dispute will get the closest study by the carriers immediately. It should be noted, however, that the recommended increase of 5 cents an hour follows closely the 2% first stage increase established by the arbitration board last week in the Engineers wage case and since accepted by the Conductors. The 5-cents an hour raise alone for just the non-operating union employees will increase the carriers' wage costs by more than $58 million a year, adding new financial burdens on the industry."

—Theodore Short, Spokesman for the Carriers' Conference Committees.

I feel the amount seemed somewhat below standard."

Theodore Short, speaking for the carriers conference committees, said the fact that the carrier representatives signed the award "speaks for itself. It still remains a fact, however, that this award . . . if applied to all classes of employees in the railroad industry, would cost the railroads an additional $196,576,432 per year.

"With traffic and revenues at depressed levels, this money simply is not available from railroad earnings and ways must be found to keep the industry solvent. It therefore becomes more important than ever that rail management and the operating unions work together to eliminate the enormous waste resulting from outdated and unrealistic work rules."

Clair M. Roddewig, president of the Association of Western Railways, noted that 33 of the nation's Class I roads failed to earn fixed charges during the first quarter of 1960. And those 33 are part of an industry which "now faces the problem of finding the money to pay the increased wages."

Archibald Cox, Harvard law professor and chairman of the arbitration board, announced the award without comment. An "opinion" from the public members of the board, he said, will be issued later (second neutral on the panel was Richard A. Lester, Princeton economics professor).

Mr. Cox emphasized, however, that the award was unanimous. And he hailed the "sincerity and sense of public responsibility of the carrier and brotherhood representatives . . . and the good will they brought to bear on the study of the case." The carriers were represented by J. E. Wolfe, vice president—personnel, Burlington; and Guy W. Knight, director—labor relations, Pennsylvania. The BLE was represented by Roy E. Davidson, first assistant grand chief and grand chief designate; and Donald S. Beattie, director of research and statistics.

Twenty-two days of hearings, 53 BLE exhibits and 38 carrier exhibits provided the material which the arbitrators sifted through in arriving at their award. The stenographic transcript of the evidence, arguments and other proceedings before the board totaled 3,091 pages.

The BLE wage case started 15 months ago, on March 2, 1959, when the Engineers served demands calling for a 12% increase, incorporation of cost-of-living allowances in basic daily

(Continued on page 43)

Watching Washington *with Walter Taft*

• **LABOR-PROTECTION CONDITIONS** won't be imposed by the ICC in connection with any service abandonment authorized under the 1958 Transportation Act. Having previously found that it lacks authority to impose such conditions where interstate trains are involved, the Commission has now made a like determination in an intrastate train-off case.

THE DETERMINATION was made as the Commission authorized the Missouri Pacific to discontinue two trains (one in each direction) between Atchison, Kan., and Downs. The authorization was the first favorable ICC action under those of the 1958 Act's service-abandonment provisions which are now in Section 13a(2) of the Interstate Commerce Act.

THEY PROVIDE for appeal to the federal agency after an adverse decision by a state authority—or if the latter fails to act within 120 days. Failure of the Kansas State Corporation Commission to act within 120 days after filing of the MP petition was the basis for the ICC's assumption of jurisdiction.

IN THE SAME CASE, the Commission, a year ago, interpreted Section 13a(2) in a way which prevents states from delaying railroad appeals. The interpretation held that the 120 days allowed to the state agency can be counted from the time a railroad train-off petition is filed. This rejected a contention of the Kansas commission which argued that counting of the 120 days could not begin until after a railroad proposal had been presented to a state agency at a hearing.

THE DISCLAIMER of authority to impose labor-protection conditions in Section 13a(1) cases, which involve interstate train-off proposals, came from the Commission early last year in a Great Northern case (RA, Feb. 16, 1959, p. 1). Because it still thinks that determination was right, the Commission said, in the present decision, that it would be anomalous to assume that Congress intended a different interpretation of Section 13a(2).

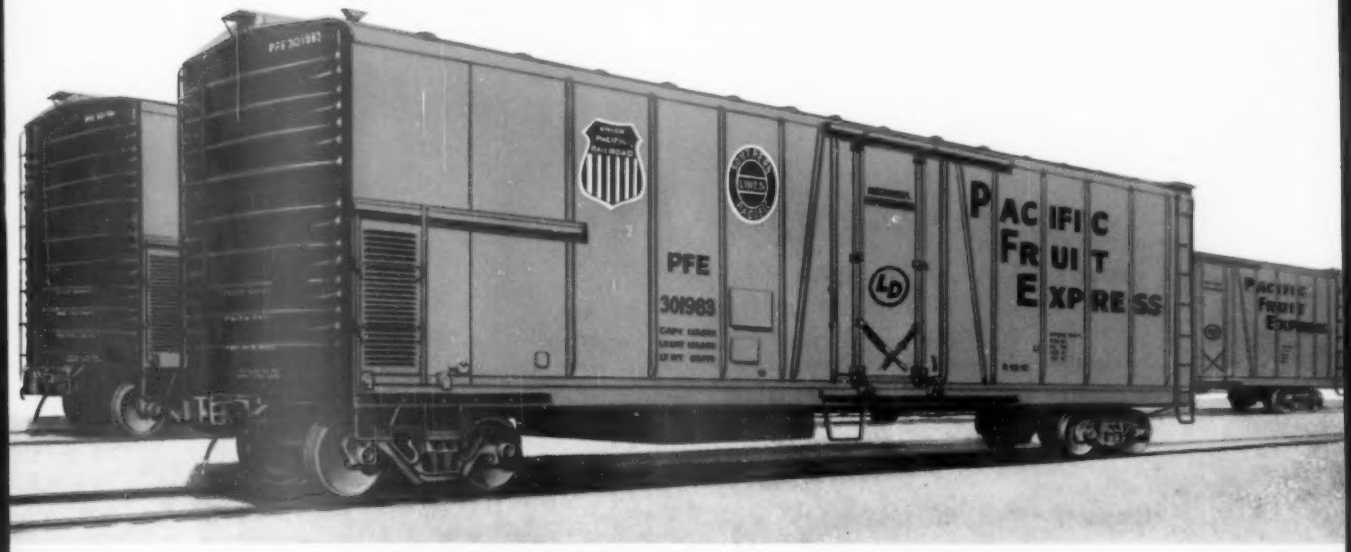
• **A VICTORY** for the Railway Labor Executives' Association is the Senate Interstate Commerce Committee's vote to recommend that Congress pass an accident reporting bill. The bill, which the committee decided to report favorably to the Senate, would not give RLEA all it wants—but it would increase substantially the number of employee-accident reports filed with the ICC.

THE RLEA DRIVE for this legislation came out of a controversy over the Commission's reporting rules. These rules were changed at the beginning of 1957 to confine reportable employee accidents to those related to transportation activities of the railroads. Later the same year came another change which was a partial return to the pre-1957 basis. Because it wanted to get all the way back—and more—RLEA appealed to Congress.

THE COMMITTEE-APPROVED BILL would deprive the Commission of the discretion it now has to determine which accidents shall be reportable. It would require the reporting of any accident to any railroad employee who is thereby incapacitated for 24 hours. In addition to their undertaking to limit reportable accidents to those connected with transportation, the Commission's present regulations call for reports only if injuries incapacitate the employees for 72 hours.

...where railroad progress is cast in steel

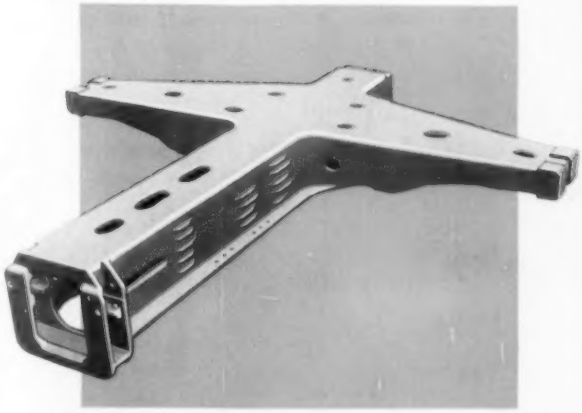
PFE *chooses*
General Steel Underframe Ends For Mechanical Reefers



The great investment in mechanical refrigerator cars and the high annual mileage traveled by this type car *demand* the best possible underframe construction.

That's why, for their new cars, Pacific Fruit Express specified 1,900 underframe end castings from General Steel. PFE recognizes the value of General Steel's underframe end which combines in one casting—the body bolster, center filler, center plate, draft gear stops, striker, coupler carrier pocket and side bearing pads.

General Steel puts the strength where it's needed most . . . in the critical body bolster-center sill area . . . to overcome the cause of underframe failures. Accepted advantages are: longer car life, lower maintenance costs, maximum car availability and resistance to rust and corrosion.



GENERAL STEEL CASTINGS

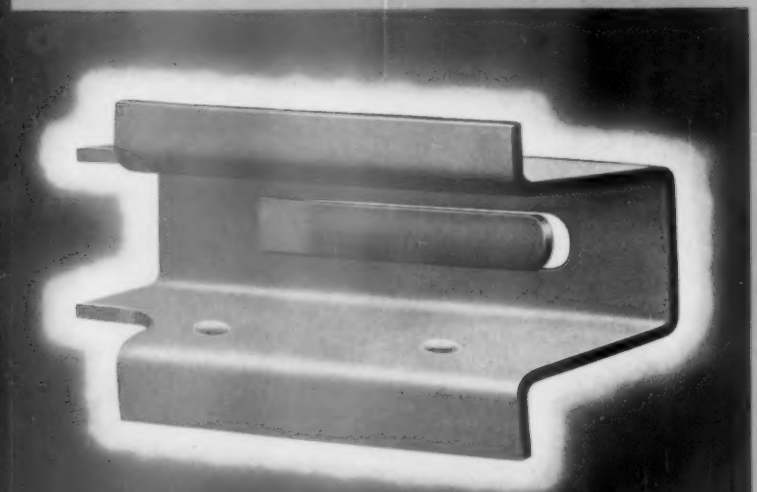
GEARED TO PROGRESS
P R I
MEMBER

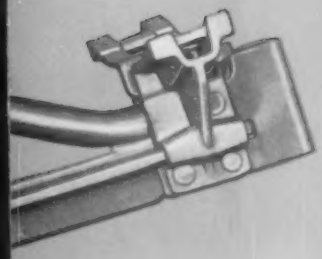
GRANITE CITY, ILL. · EDDYSTONE, PA. · AVONMORE, PA.

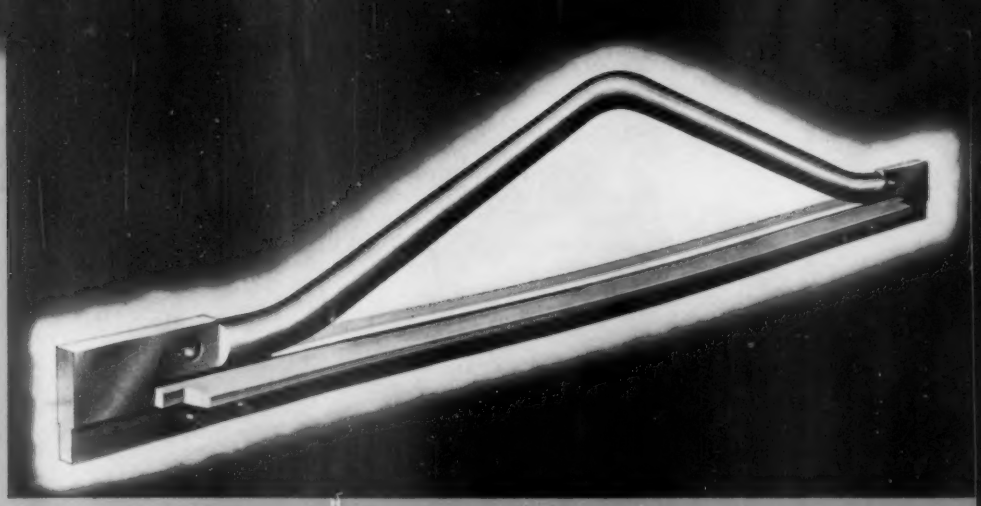
Buffalo Solid Truss Unit Brake Beam
Preferred for top Unit performance

BUFFALO-UNIT "A Solid

Buffalo-Unit Self-Centering Wear Plate. The only wear plate designed and produced by Buffalo-Unit for use on Unit Trucks







Basic Buffalo-Unit solid truss brake beam section shows the clean design and rugged strength that has made it the world's No. 1 hangerless brake beam

Citizen" everywhere

There are 661,773 freight cars equipped with Unit Brake Beams running to all points of the compass on the railroads of North America. This wide acceptance of the original hangerless type brake beam proves the economic point that Buffalo Solid Truss Brake Beams save money in more ways than one. Lower cost and safety are assured through simplified design.

Buffalo and Unit combined to design and produce the Unit Truck now acknowledged to be the outstanding freight car truck braking system of the world.

UNIT TRUCK

A DEVELOPMENT OF

BUFFALO BRAKE BEAM COMPANY
UNIT TRUCK CORPORATION

NEW YORK · BUFFALO · HAMILTON, ONT.

after 88,000 miles of accelerated heavy duty service

after 19 months of weekly 1,080 mile round trips

after the equivalent of more than eight years of normal freight car service

. . . our check-tests of Waugh-Gould Type 700 friction-rubber draft gears in ore car service for a Class I Eastern railroad showed that gears were "in excellent condition" and "the excellent condition of friction surfaces indicates probability of long and efficient draft gear life." Over the 19-month period, capacity of the gears increased more than 10%.

Here then, is evidence of durability for long gear life and of lasting capacity for extended service, car protection and low-cost operation.

You can count on it, these gears will pay their way on any railroad.

THE WAUGH-GOULD TYPE 700 FRICTION-RUBBER DRAFT GEAR

THE HIGHEST CAPACITY STANDARD POCKET GEAR EVER APPROVED BY A.A.R.

*Certified under A.A.R. Specification M-901-53, Waugh-Gould Type 700 Draft Gear has an official average capacity of 51,600 ft. lbs. at 2.62" average gear closure with average reaction of 1,006,200 lbs. Half travel capacity, 10,640 ft. lbs. or 20.6% of capacity at full travel.

WAUGH EQUIPMENT COMPANY

NEW YORK • CHICAGO • ST. LOUIS • Canadian Waugh Equipment Company: Montreal

What Are Your RR's Rules?

Here are some more questions on rules 4 and 5, similar to those asked March 21, p. 18. We'll have some comments from readers later—Editor.

Some railroads use the "Standard Code" note to Rule 99 "When trains are operating under Automatic Block System Rules, protection against following trains will have been complied with when full protection is afforded against trains moving at restricted speed." Taken with the definition of restricted speed (page 10 of the "Standard Code"), this seems to mean that the flagman would be complying with the rule if he extinguished the markers, painted the rear of the train with flat black paint, climbed into an upper berth, and went to sleep. How do the rules examiners of railroads using this "Note to Rule 99" actually interpret it in practice?

Doesn't flagging (under Rule 99) in automatic block signal territory but *not* within interlocking limits (under second paragraph of Rule 605) actually reduce safety by weakening the meaning of restricted speed and by dividing responsibility?

Did any railroad comply with the 1947 block signal order by using manual block signal rules which would not permit trains to meet at a non-block station (268 ICC 547 at 560) rather than by installing automatic block signals or reducing speed limits?

Unmodified Rules 317 and 318 (*not* Rules 317 Optional and 318 Optional), by their second paragraphs, forbid trains to meet at a non-block station. Does any railroad use these unmodified rules either because of the 1947 order or otherwise?—*These questions came from a railroad executive who prefers to remain anonymous.—Ed.*

A forum for railroaders who want to explore questions of importance to their industry, this column welcomes both questions and answers from readers at all levels of responsibility in the industry and associated fields. We'll pay $10 to any reader submitting a question that forms the basis for a column discussion. Address correspondence to Question and Answer Editor, Railway Age, 30 Church St., New York 7, N.Y.

Why Not Run-Through Yard Switches?

To the Question and Answer Editor:

I was particularly interested in the item concerning yard switches which may be run through by yard crews (RA, May 2, p. 14). I note that the two schools of thought quoted were (1) that this particular type of switch could be run through without causing damage, and (2) that such a switch should not be run through because a train service employee was supposed to be on the ground preceding the movement and observing the position of switches, and, therefore, he should throw such a switch since it was bad psychology to tell an engineman that he could run through a switch set against his movement.

This question is one that I feel my experience at Potomac Yard entitles me to have an opinion on, which has been proven to be correct as a result of actual experience.

All hand thrown switches installed at Potomac Yard now are Racor switches which are of this type. We have issued General Orders to all crews to the effect that any switch stand painted yellow may be run through by any crew. Switch stands which may not be run through are painted black. We have found that crews have not had any trouble in observing these General Orders. The number of instances a black switch stand has been run through have been very infrequent. It is true that when run through the type of switch we have eliminates the possibility of damage and subsequent derailment.

I do not subscribe to the school of thought concerning the bad psychology on the engineman. To inform a crew it is not necessary for them to throw a certain switch relieves them of the responsibility of having to perform some manual labor. They enjoy being relieved of it and cooperate fully in handling such switches correctly.

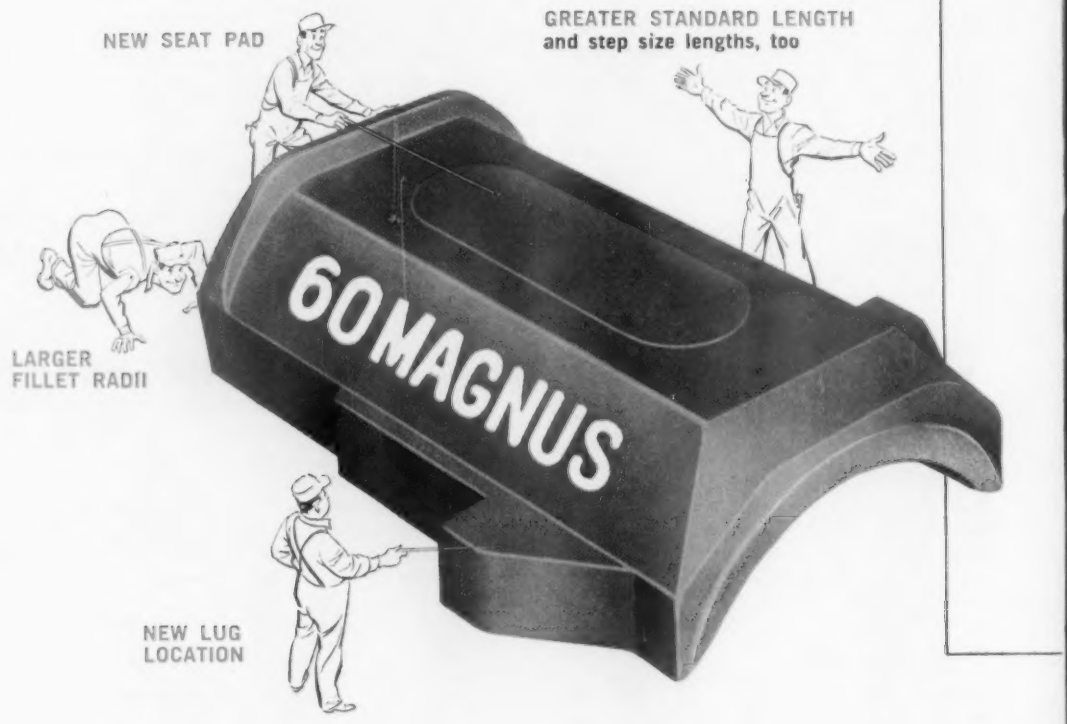
The two main benefits to be derived from use of run-through yard switches in my estimation are:

1. A review of personal injury records at any terminal will indicate a number of accidents, some serious, which have resulted from train service employees throwing switches. These accidents are such things as allowing the ball to fall on a foot, strain in operating the switch lever, and injuring hands or fingers in handling the ball or latch. The use of run-through switches eliminates the necessity of manually throwing the switch for a trailing movement and therefore eliminates the possibility of a personal injury when such movement is made. Also, that type of switch is constructed so that even when it is thrown manually the possibility of personal injury is quite remote.

2. By far the most important benefit is the actual monetary savings. Standard operating procedures require a crew to stop in the clear when a switch is set against a trailing move. A member of the crew must walk forward to the switch, throw it and then signal for the movement to continue. A yard engine complete with crew at Potomac Yard represents an expenditure of 34¢ per minute. For every switch that is thrown in a trailing direction, approximately one minute of yard engine time is lost. To be able to continue with a trailing movement through a run-through switch saves this minute of unproductive time. At the end of an eight-hour tour of duty a considerable number of yard engine minutes have been saved. The net result is that more work has been accomplished and perhaps a full crew has been saved, which represents, at the rate of 34¢ a minute, $163.20. When an appreciable number of crews are worked at a terminal in one 24-hour period, such as at Potomac Yard, at the end of a year's time the amount of money that can be saved as a result of using these switches becomes a figure most attractive to management and one which will definitely justify installation of this type of switch.—*D. C. Hastings, superintendent, Potomac Yard.*

New AAR Standards give

IMPROVED OVERALL PERFORMANCE



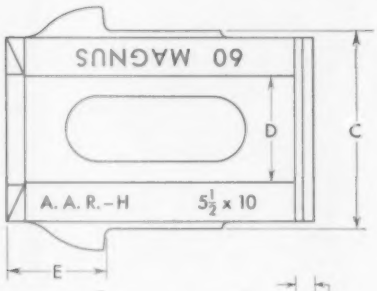
New raised back bearing design improves load distribution, reduces lateral play, balances thrust loads and reduces wiping at both fillets—promises a new high in solid bearing performance and economy

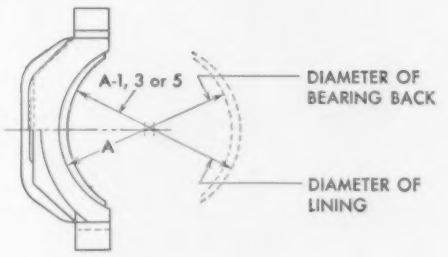
IN THE NEW AAR standard bearing design, there are a number of important changes which will improve overall performances on both new and old cars. The principal design changes and their advantages are as follows.

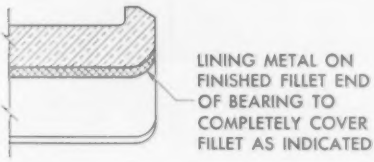
A new raised seat pad on the bearing back gives controlled radial load distribution—puts preferential loading in the middle of the journal where lubrication is more abundant and uniform at all times. This lowers operating temperatures, builds up bearing miles.

Magnus Solid Bearings

NEW A. A. R. STANDARD JOURNAL BEARINGS







CLASS	SIZE JOURNAL	DIMENSIONS IN INCHES														
		A	Std.	Step Sizes		Std.	Step Sizes		C	D	Std.	Step Sizes		Std.	Step Sizes	
			A-1	A-3	A-5	B-1	B-3	B-5			E-1	E-3	E-5	F-1	F-3	F-5
C	5 x 9	5.015	5.015	4.890	4.765	$8\frac{3}{4}$	$8\frac{27}{32}$	$8\frac{15}{16}$	$5\frac{3}{8}$	$3\frac{1}{4}$	$2\frac{29}{32}$	$2\frac{15}{16}$	$2\frac{31}{32}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$
D	$5\frac{1}{2}$ x 10	5.515	5.515	5.390	5.265	$9\frac{3}{4}$	$9\frac{27}{32}$	$9\frac{15}{16}$	$5\frac{7}{8}$	$3\frac{1}{4}$	$3\frac{13}{32}$	$3\frac{7}{16}$	$3\frac{15}{32}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$
E	6 x 11	6.015	6.015	5.890	5.765	$10\frac{3}{4}$	$10\frac{27}{32}$	$10\frac{15}{16}$	$6\frac{7}{8}$	$3\frac{5}{8}$	$3\frac{15}{32}$	$3\frac{1}{2}$	$3\frac{17}{32}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$
F	$6\frac{1}{2}$ x 12	6.515	6.515	6.390	6.265	$11\frac{3}{4}$	$11\frac{27}{32}$	$11\frac{15}{16}$	$7\frac{3}{8}$	$4\frac{1}{8}$	$3\frac{31}{32}$	4	$4\frac{1}{32}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{13}{16}$

MAGNUS
METAL CORPORATION

Standard bearings are increased ¼" in overall length, giving greater bearing area and reduced lateral play. Step sizes are also increased in length (see above), tending to reduce lateral play on worn journals. This, together with new lug location, gives more balanced thrust loading than standard bearings have ever had before. Fillet radii have been increased at both ends of the bearing for further reduction in end wear and reduced wiping of the babbitt at both fillets.

These design modifications should help establish a new high in the performance of low-cost solid bearings. For further information write to Magnus Metal Corporation, 111 Broadway, New York 6, or 80 E. Jackson Blvd., Chicago 4, Ill.

MAGNUS METAL CORPORATION
Subsidiary of NATIONAL LEAD COMPANY

SPILLING OF BULK LOADS and damage to other types result in customers' claims. Overspeed impacts also affect car structures and interfere with orderly operations—factors which ordinarily do not receive great emphasis.

How to Reduce Your Car Damage

The Story at a Glance: Constant emphasis on the high cost of lading damage, resulting from overspeed impacts and other causes, has largely obscured another kind of damage that's all too common in the railroad industry—the cost of damage to the rolling stock itself.

The cost of freight-car maintenance has been estimated as running in the neighborhood of $750 million a year. Apart from normal wear, some part of this bill undoubtedly results from the same causes that result in damage to the lading.

Mechanical officers today are taking a new look at freight cars to see if continuing improvements in car components, including wider application of those available now, will trim annual repair bills.

One mechanical officer has estimated that if draft-gear capacity on existing equipment were doubled, it would trim freight-car repair costs by at least 20%. The estimate may be high, but savings even approaching that amount would make a sizeable contribution to the industry's earnings.

A car-repair operation analyzed a few years ago indicated that 12.2% of the cars shopped had definite impact damage and that an additional 37.6% had damage which probably could be attributed to impacts.

Nor has the passage of time altered this basic problem. This week's AAR Mechanical Division meeting in San Francisco will hear several committee reports on technical advances aimed at countering the serious effects of impacts.

One road recently reported that it has been experiencing an "excessive" number of failures on the bottoms of body bolsters of box cars built eight years ago. The Mechanical Division's Car Construction Committee is now investigating to determine if there is an "inherent" weakness in this design, or if "the plates are inadequate to withstand the heavy end shocks which result from present-day operating conditions."

Amid indications that the problems associated with freight-car journal assembly may be nearing solution, it is probable that the end impact problem may take over as the primary one confronting the industry.

In addition to the costs of lading and structural damage, impacts materially shorten car life, intensify car shortages as a result of bad orders, penalize rail shippers by increasing packaging and loading costs, and make railroads a less desirable transport agency for certain types of shipments.

The solution to high impacts does not lie solely with mechanical designers and equipment suppliers. For years, these people have joined with claim officers, operating officers and mechanical officers in advocating a maximum switching speed of 4 mph. And yet observations of operations reveal that this 4-mph coupling-speed limit is regularly exceeded.

There is firm basis for the 4-mph figure. Above this speed, all of the AAR standard draft gears, except for a few recently approved designs, reach complete closure and the reaction force becomes extremely high. Result: lading damage and possible structural damage.

Because overspeed impacts are experienced by all types of cars, it is extremely difficult to set a level of minimum draft gear protection for cars and ladings. The level must be established by those responsible for establishing yard coupling speeds. Even with the introduction of computer-controlled speed limiting systems in hump yards,

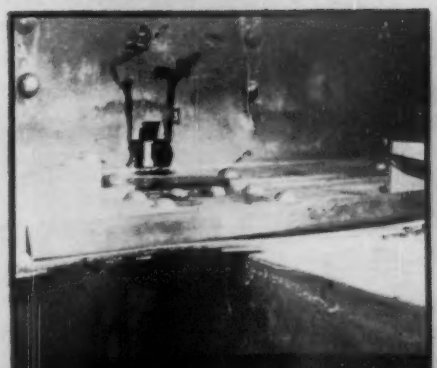
(*Continued on page 26*)

What Overspeed Impact Does to Cars

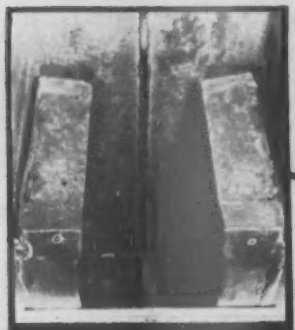
Overspeed couplings and unusual slack action can release quantities of energy virtually impossible to absorb.

Portions of a car (shown in grey below) can be stressed very highly when an impact completely compresses the draft gear so the coupler hits the striker castings at the end of the center sill. The photos illustrate what can happen.

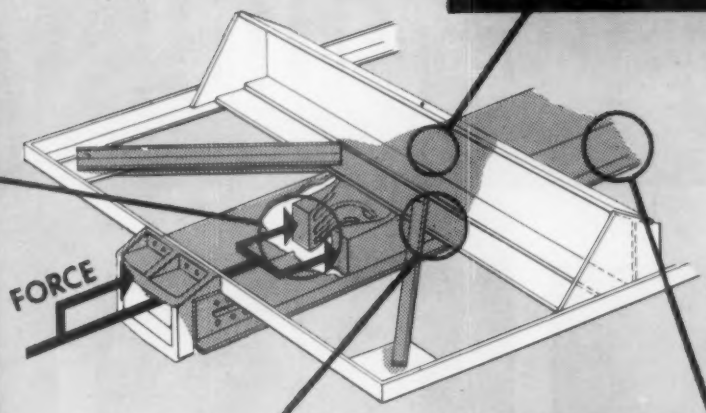
As part of their unending fight against car damage, mechanical officers are now keeping close watch on the recent development in which the cast-steel end section comprises the bolster and draft sills as a single assembly. The development promises to reduce costly maintenance.



Deformation of bolster cover plate followed series of 12-mph impacts. Bolster is often damaged in this manner.



Rear draft stops have been deformed and connection with center sill is loosened. Frequently, center plate also will be damaged.

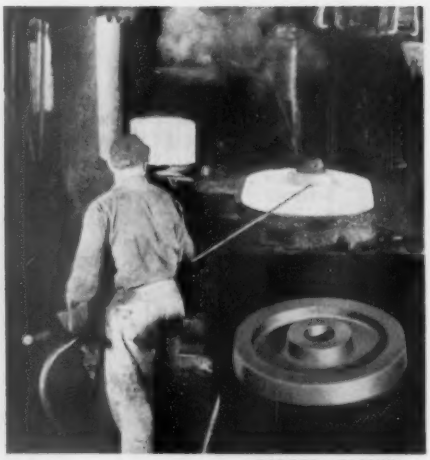


Bolster reinforcement plate was deformed at its connection with the diagonal brace which extends out to the corner of the car.

Center-sill sections can be bulged so that eventual result may be a complete replacement of the entire center sill—a costly repair job.

why there is *more* Edgewater rolled

WHEEL "BLOCK"



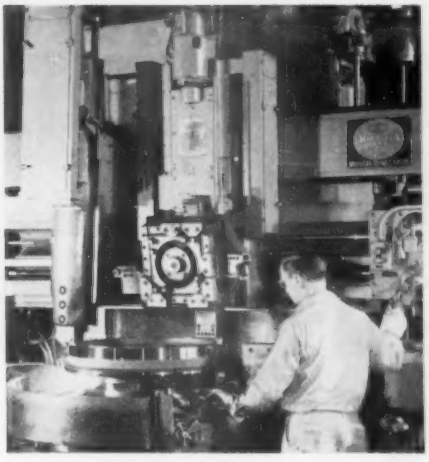
FORGED "BLANK"

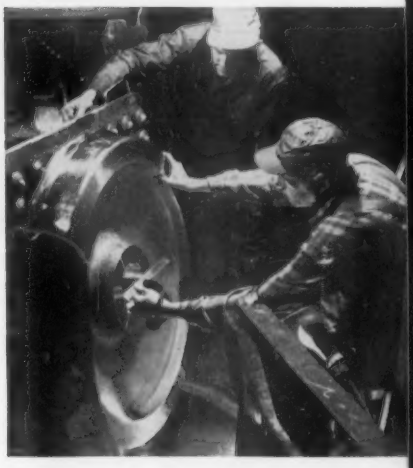
EXTRA MILEAGE starts with the steel, made in our own furnaces. Edgewater controls the properties of steel through advanced metallurgical practice. Bottom-poured ingots are sliced into "blocks" from which wheels are forged and rolled.

HOT FORGING produces a "wheel blank" (above) from a thoroughly heated block seen in the forging press at the rear. The forged blank is then transferred to the rolling mill for rolling to final size and shape. No intermediate heating is needed.

POWERFUL ROLLING MILL extends the rim and plate, and forms the flange by continuous rolling action. The homogeneous steel structure and refined circumferential grain thus developed produces wheels which have superior uniformity and strength.

mileage in steel wheels





HEAT TREATING, with carefully controlled cooling, increases strength and ductility and hardens the wear surfaces. The process has been developed to give longer life under heavy loads and to resist damage from severe braking.

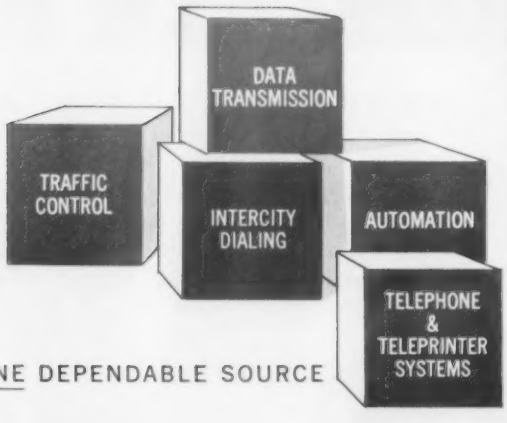
MACHINING, after heat treatment, is the last manufacturing operation before final inspection. Powerful, highly-automatic, precision wheel lathes guarantee the fine finish, uniformity and dimensional accuracy of Edgewater rolled steel wheels.

INSPECTION at all stages insures rigid quality control. Laboratory analysis, examination of blocks, and two separate surface and dimensional inspections guarantee specification requirements. Freedom from internal flaws is assured by ultra-sonic inspection at prescribed intervals.

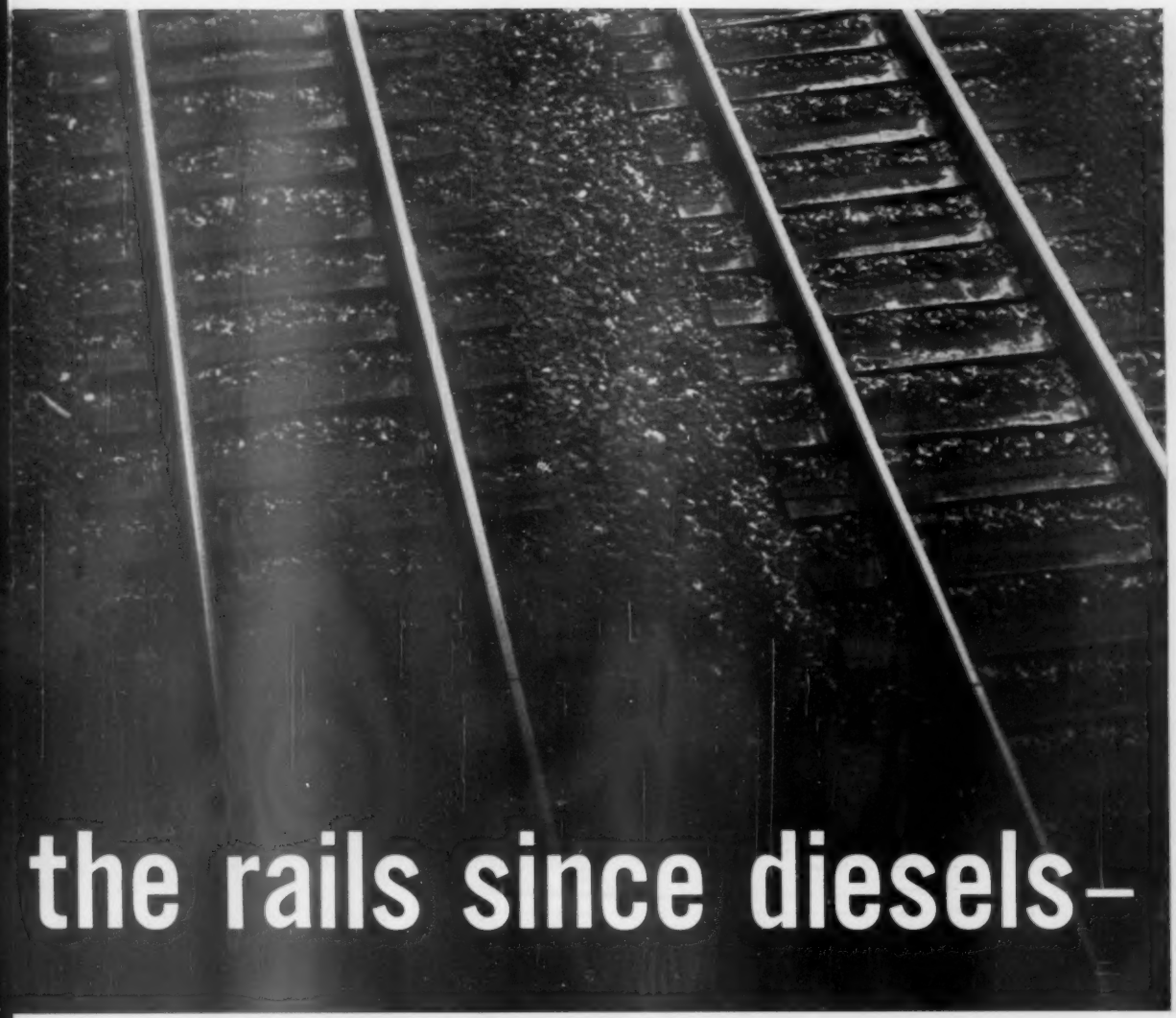
Edgewater Steel Company

P. O. Box 478 · Pittsburgh 30, Pa.

Biggest thing to hit high-speed system



ALL THE "BUILDING BLOCKS" YOU NEED—FROM ONE DEPENDABLE SOURCE



the rails since diesels—communications

Today—thanks to electronics—your present communications system can be converted to a *super*-communications network capable of speeding up freight, cutting red tape and reducing paper work.

Without stringing a single additional wire, you can increase the traffic capacity of your lines 16 times, and utilize them for high-speed teleprinters, data transmission and automatic control.

And the entire system can be integrated for intercity dialing that puts *everyone* along the line within instant reach.

We can supply this high-speed communications package right down to the last connection—engineered, furnished and installed. Or work with your Communications Superintendent in planning a "building-block" system that permits you to add as you go.

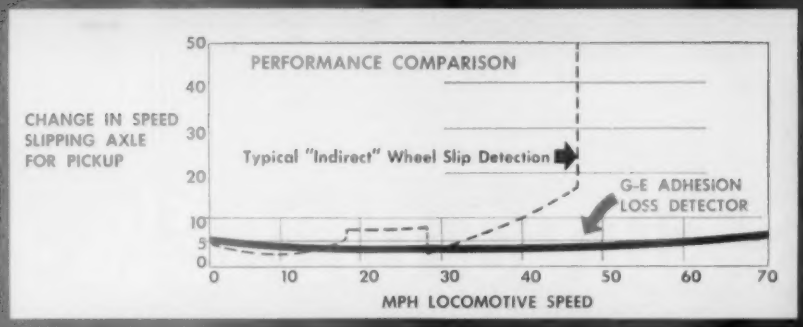
For full details, phone FIllmore 5-7111 or write the Director, Railway Sales, Automatic Electric Sales Corporation, Northlake, Illinois.

AUTOMATIC ELECTRIC

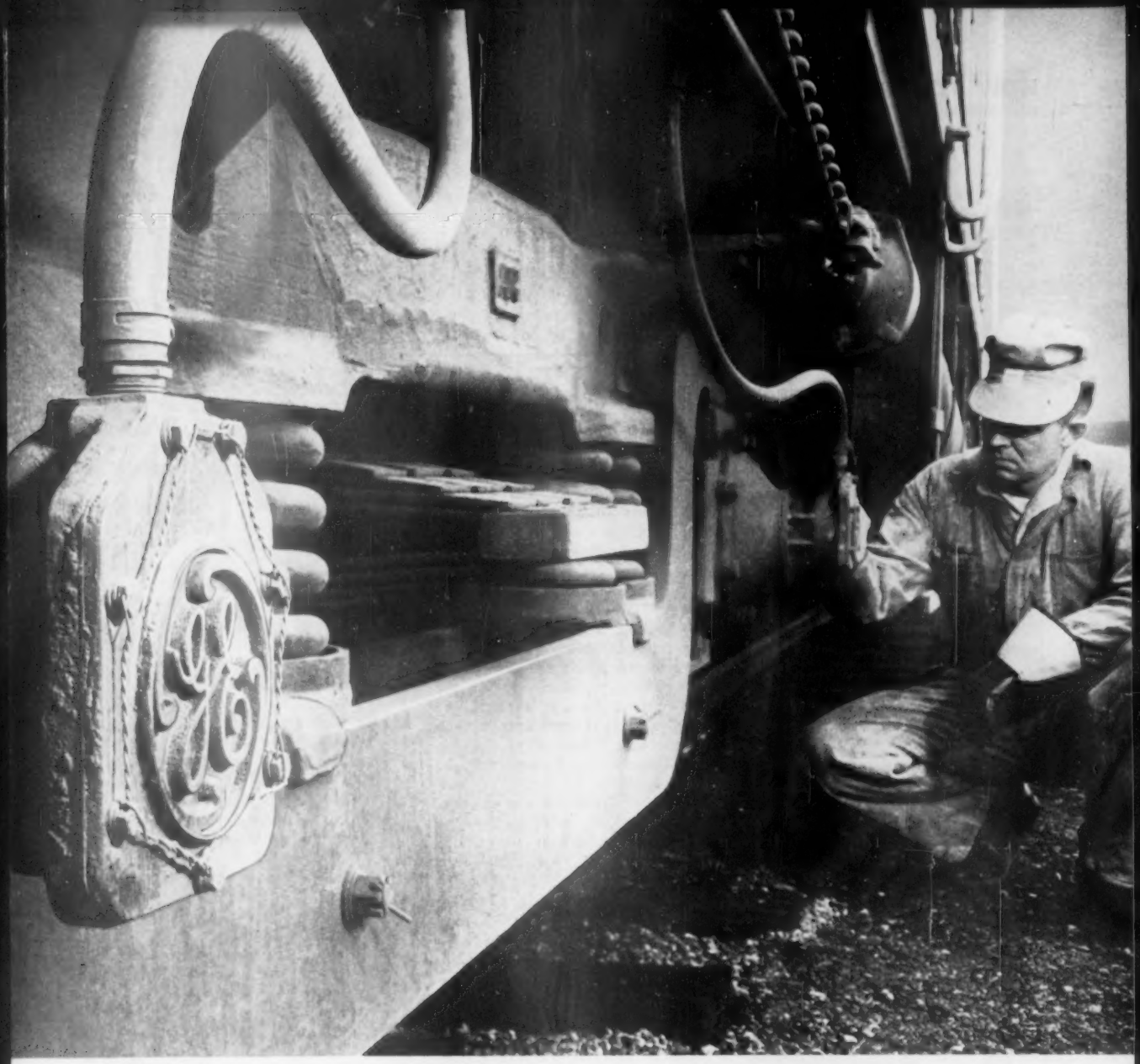
Subsidiary of

GENERAL TELEPHONE & ELECTRONICS

Another General Electric
CERTIFIED Product



NEW Adhesion Loss Detector Protects at ALL Speeds



Detects slips and stalls before wheel or rail damage occurs

General Electric now offers you the most efficient slip detection method available . . . the G-E Adhesion Loss Detector. G.E.'s Adhesion Loss Detector works on the principle of axle rpm differential to give you these important advantages:

- Low-cost protection at all speeds
- Rapid response rate
- Minimum number of moving parts
- Requires no maintenance schedule
- Automatic slip correction when teamed with control circuits

For more information, contact your General Electric Railroad Regional Parts Center or write for Bulletin GEA-6929, Section 106-03, General Electric Co., Schenectady 5, New York.

Progress Is Our Most Important Product

GENERAL ELECTRIC

G-E Railroad Regional Parts Centers are located in Los Angeles • Chicago • St. Louis • Atlanta • Erie

much switching will continue to be done in flat yards where every move is subject to human error.

Introduction of high-capacity and long-travel draft gears and of cushion underframes cannot be used by operating departments to raise the general level of switching speeds. The added capacity or protection is designed to prevent damage at *existing coupling speeds*. If maximum switching speeds are kept below 6 mph, adequate protection can be provided for *bulk* loads (and almost all car structures) within today's standard 24⅝-in. draft-gear pockets.

The problems of protecting cars and of protecting fragile ladings actually require separate solutions. Economically, it is unrealistic and, technically, it is unnecessary to suggest that all freight cars be equipped with hydraulically-cushioned sliding center sills. Each type of car can be fitted with cushioning equipment tailored to fit it for the service in which it is to be used. With the increasing numbers of specialized cars, this will be less complicated than was formerly the case when most cars were built to be used for "general service."

A car designed to carry coal, for example, does not require the same degree of protection of draft capacity that a car used to transport auto glass requires. This point was made at a recent ASME meeting by R. E. Abbott, AAR, and H. K. Lanning, Santa Fe.

"Inasmuch as these cars are switched together in a yard and the kinetic energy we are dealing with is of such a high magnitude, capacity is required for both cars during coupling.

"The car carrying the glass must not be expected to carry the entire burden of coupling. By the same token, the car carrying coal must not necessarily be provided with enough draft capacity to protect window glass. Thus, we see that, to cope honestly with the problem, we must first establish minimum requirements and then provide additional protection as dictated by need and experience."

The minimum requirements are those which will protect car structures against impact damage. Once structures have been protected, additional cushioning, capacity and travel can be provided to fit the car for the service in which it will be used.

Tests conducted by National Malleable & Steel Castings Co. concluded that maximum coupler force developed during an impact "is the major determinant of car structural stresses and damage, but is not directly related to lading forces and lading damage.

"A draft gear which maintains minimum coupler forces during an impact will provide maximum protection to the car structures, regardless of any other characteristic of the draft gear, such as recoil, capacity under the drop test machine, capacity at a certain travel, and so on.

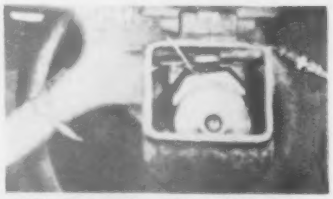
"The coupler force produces corresponding stresses in virtually all parts of the car structure which are integral or relatively integral with the center

(*Continued on page 30*)

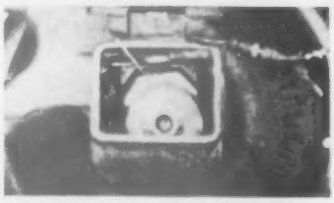
Here's Where Journal Box Trouble Begins

Impact

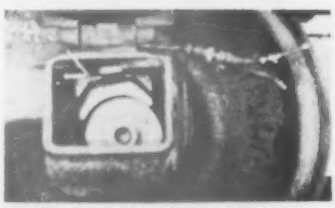
.037 seconds after impact



.074 seconds after impact



.111 seconds after impact



.148 seconds after impact

Separation of journal box components during normal switching operations can result in interruption in lubrication and lay the ground for trouble.

The photos (left) were made at National Malleable's Technical Center, where a high-speed movie camera was used to record these journal box disturbances.

The impact being recorded in this case was between a standing car and one moving at 8 mph. As the picture sequence shows, the bearing on a truck of the standing car finally lifted more than ⅛ inch off the axle. There were comparable disturbances between all the components.

Initially, the struck car was displaced vertically with its bearing dropping away from the wedge which remained against the roof of the journal box. Subsequent displacement of the wedge, bearing and axle are shown at .037 second intervals as the car begins to move from right to left.

The last photograph, at the moment of maximum bearing displacement, shows the axle has moved far to one side of the journal box, probably bringing the axle's fillet and dust guard seat into contact with the dust guard well at the rear of the side frame casting. Usually these journal box components, with possible exception of lubricator or waste packing, return to their normal positions. If they do not, or if they have been damaged, the result can be a hotbox.

Changes in the journal bearing, wedge and journal box casting will again be studied this week at the AAR's Mechanical Division meeting. For several years, designs which counter bad effects of higher switching speeds have been under study and development by suppliers, by individual railroads and by the AAR Research Center.

"WE UNLOAD 80 TRAILERS IN LESS THAN 80 MINUTES WITH OUR PRESENT GENERAL AMERICAN PIGGY-BACK CARS"

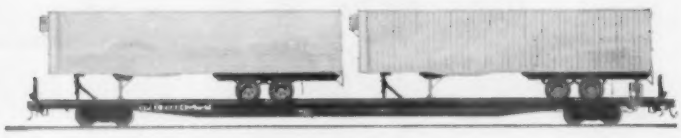
Southern Pacific

Southern Pacific is another of America's great railroads that has General American Piggy-Back cars in use and on order to haul freight faster, safer, more economically.

General American's Piggy-Back cars are fastest to load and unload (trailers align automatically); the G-85 is 10,000 pounds lighter than any other Piggy-Back car for greater payload; takes all trailers without modification (no dollies needed). The G-85 needs no expensive loading and unloading equipment. You can mix or match trailers, containers, auto carriers, vans and tanks on the G-85.

There's more protection against shock with the famous General American shock absorber that travels 22 inches.

Call or write the General American office nearest you. In piggybacking, you'll find . . . *it pays to plan with General American.*



*The Clejan*R-85 Piggy-Back car currently in use and on order by the Southern Pacific is the lightest, most economical Piggy-Back car on the rails today. The General American G-85 Piggy-Back car also on order by the Southern Pacific is the most versatile Piggy-Back car ever developed.*

**"Clejan"—Trade Mark of General American Transportation Corporation for piggyback railway cars.*

GENERAL AMERICAN TRANSPORTATION CORPORATION
Piggy-Back Division

135 South LaSalle Street, Chicago 3, Illinois

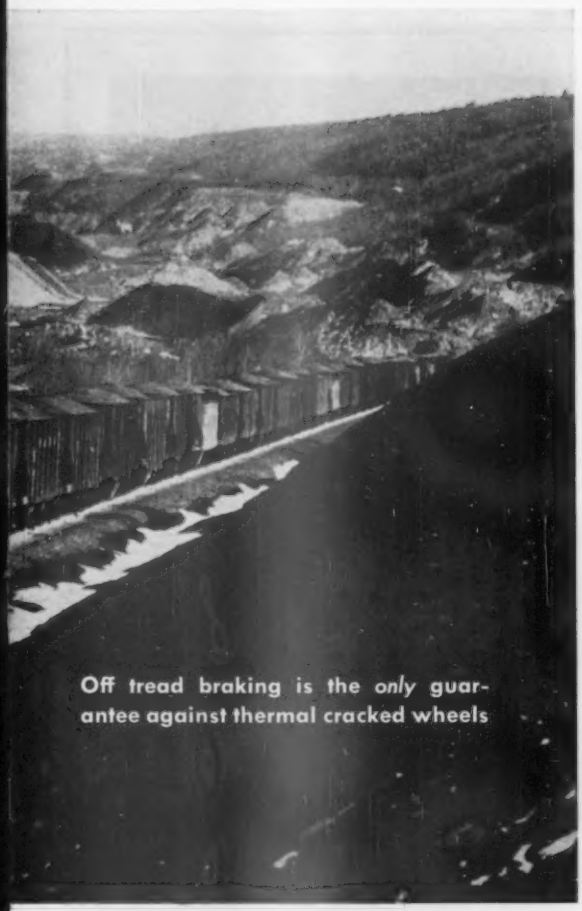
Piggy-Back GENERAL AMERICAN TRADE MARK

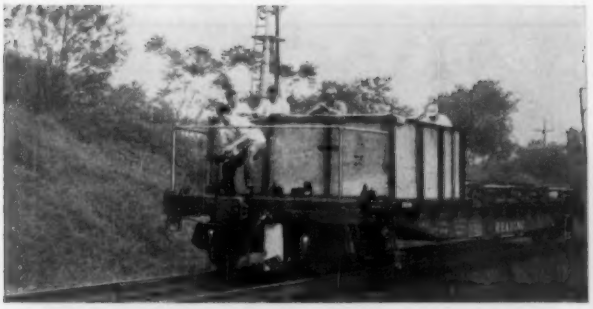
new Budd

gives more economy, increased safety, better grade braking

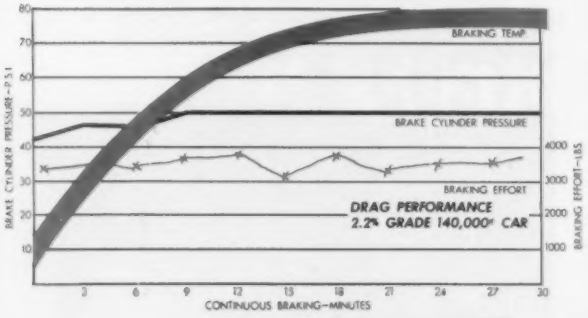
Proved economies of disc brakes, pioneered by Budd and demonstrated on more than 2200 passenger cars during the past 20 years, are now applied to freight cars in the new Frate-Brake. Special sintered iron brake shoes, developed to Budd specifications, meet *all* freight braking requirements: better friction at high speeds, less wheel-slide at low speed, continuous downgrade braking without overheating, desirable braking characteristics on either loaded or empty cars.

OUR REPRESENTATIVE WILL BE PLEASED TO DISCUSS THIS SUBJECT FURTHER AT YOUR CONVENIENCE.





FRATE-BRAKE has undergone extensive tests in the laboratory and on railroads, and initial installations are now on interchange service. A.A.R. approval has been received for installation of 250 car sets. Photo shows tests on Reading Railroad.



CONTINUOUS EFFECTIVE GRADE BRAKING WITHOUT OVERHEATING, even after 30 minutes of steady braking pressure on 2.2% downgrade with 140,000 lb. load, Frate-Brake operates at constant temperature . . . eliminates need for brake cycling.

FRATE-BRAKE

SAFETY Frate-Brakes reduce hot boxes by eliminating wheel-spreading forces. No brake beams to cause derailment. Slack adjusters not required.

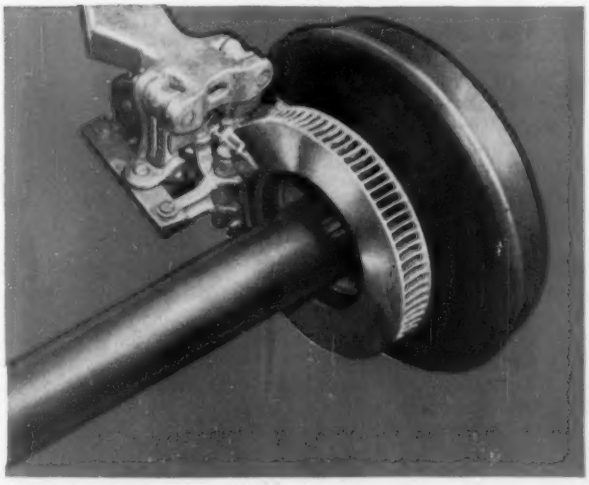
ECONOMY Wheel life greatly increased because wheels run cool, are free from heat and wear caused by brake shoe abrasion and thermal cracking. Prototype installations indicate longer brake shoe life.

DESIGN FREEDOM Frate-Brakes are completely truck-mounted. No body-mounted cylinders, slack adjusters, levers, guides and rods.

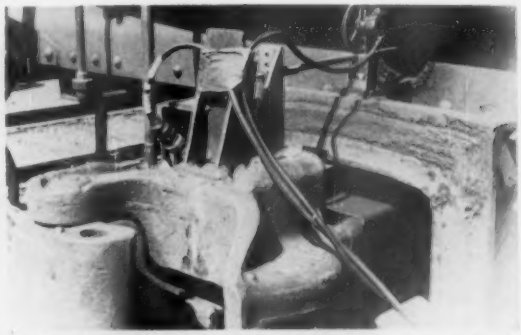
NO OVERHEATING Continuous, effective braking on heavily-loaded car on long downgrades.

RAILWAY Buda DIVISION

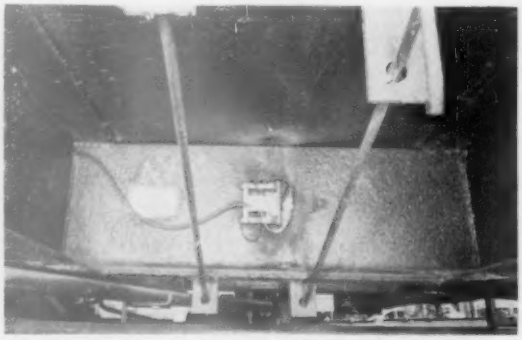
PHILADELPHIA 15, PA.



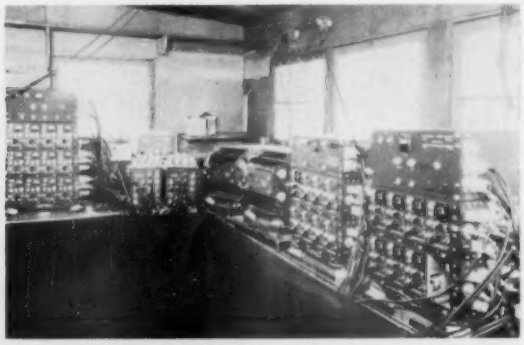
IMPACT TEST consists of drawing striker car (far right) up ramp and releasing it at height which will give proper striking velocity. Box car at center has instruments to measure effects of this impact and for this test was backed up by two other cars.



COUPLER equipped with strain gages around shank and with device to measure draft gear travel indicates preliminary work which must be done for test program. Wires take measurement signals to wayside recorders.



ACCELEROMETER, mounted on ore car center sill, measures effect of impacting. To measure stresses, resistance type strain gages are attached in areas which preliminary work has indicated to be high stress areas.



INSTRUMENT ROOM has series of amplifiers and multiple-channel oscillographs where reactions of striking and struck cars are recorded for subsequent study as part of the fight to reduce maintenance costs.

'Cardiogram' of a Freight Car Under Impact

Measuring the forces, accelerations and stresses that occur in a freight car is no simple matter. Yet precise measurement is possible, and it is being done as part of the continuing job of improving cars and car components.

The accompanying photos point up the difficult instrumentation required in modern test work. These photos are from National Malleable's Technical Center in Cleveland. Similar work has been done at the AAR Research Center in Chicago, as well as by such companies as ACF Industries, Aluminum Laboratories, Pullman-Standard, Waugh-Gould, and others.

Testing a car for structural reaction at impact requires simultaneous measurement at many points, and the stress data obtained must be converted into useable and significant form. The data then become additional tools in the search for the better freight car.

The pay-off for such cars comes not only from improved customer service but, in part at least, from reductions in the annual bill for maintenance and repair.

HOW TO REDUCE YOUR CAR DAMAGE (*Continued from page 26*)

sill . . . Bulk cars should have draft gears which have been shown to provide minimum coupler forces with respect to impact speed or a speed range which is important in service. Such a range of speed would extend from that at which coupler forces begin to cause important structural stresses up through a speed which is as high as that normally expected during the service life of the car. This range of speed would encompass a force range of approximately 600,000 to 1,000,000 lb with little emphasis being given to protective ability of the draft gears below 600,000 lb and little emphasis on gear recoil.

"Capacity in draft gears higher than that of present standard friction gears must be justified primarily on the basis

(*Continued on page 35*)

TWIN FRICTION ACTION

NOW
A.A.R. APPROVED
FOR
UNLIMITED SALES

means

REDUCED REPLACEMENT COSTS

Two "shock-stopping" Friction clutch mechanisms extend service life of freight cars and equipment . . .

There's no doubt about it . . .
Exclusive Peerless Twin Friction clutch Mechanism combined with 4 powerful springs keeps replacement costs down by more *effectively absorbing shocks—more efficiently dissipating impact energy. Lower transmittal ratio* keeps all the vital points of the car from receiving dangerous impact shocks . . . Chances of jamming due to severe impacts are reduced because of independent nest operation—You get an *Extra Measure of Protection* that means reduced replacement costs.

Inspection of every Peerless component *before assembly* and complete *testing after assembly* assure consistent dependability. Write for the complete Peerless TWIN FRICTION ACTION story—Ask for Bulletin T-1.

T-1 FRICTION DRAFT GEAR

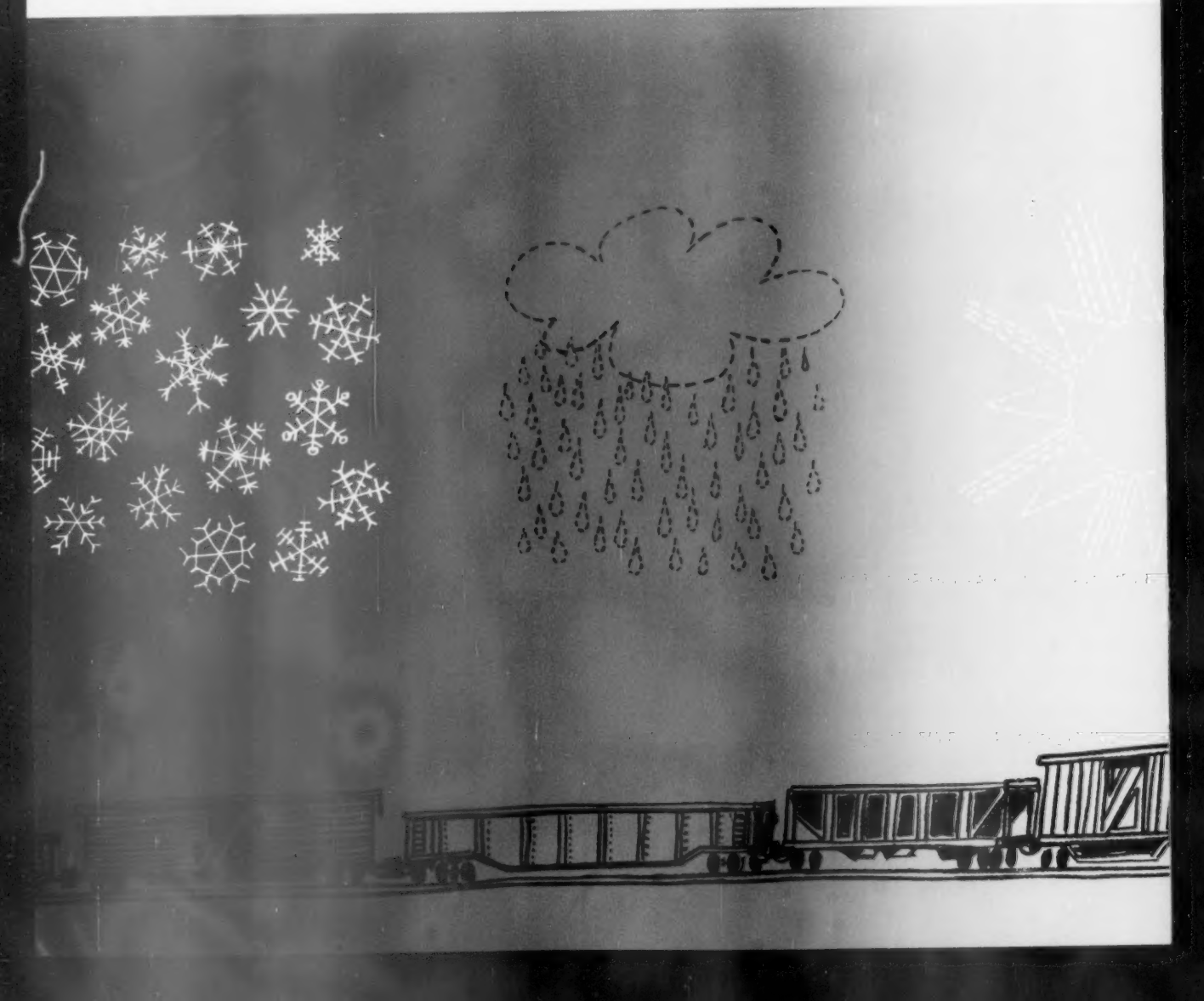
PEERLESS EQUIPMENT

Division of Poor & Co.
332 South Michigan Avenue • Chicago 4, Illinois

B-555R

PEERLESS

WHEN SUMMER COMES... CAN WINTER BE FAR BEHIND?



■ While June is bustin' out all over, it will come as no surprise to any railroader that *metal brake shoes* weathered the rigors of one more bad winter.

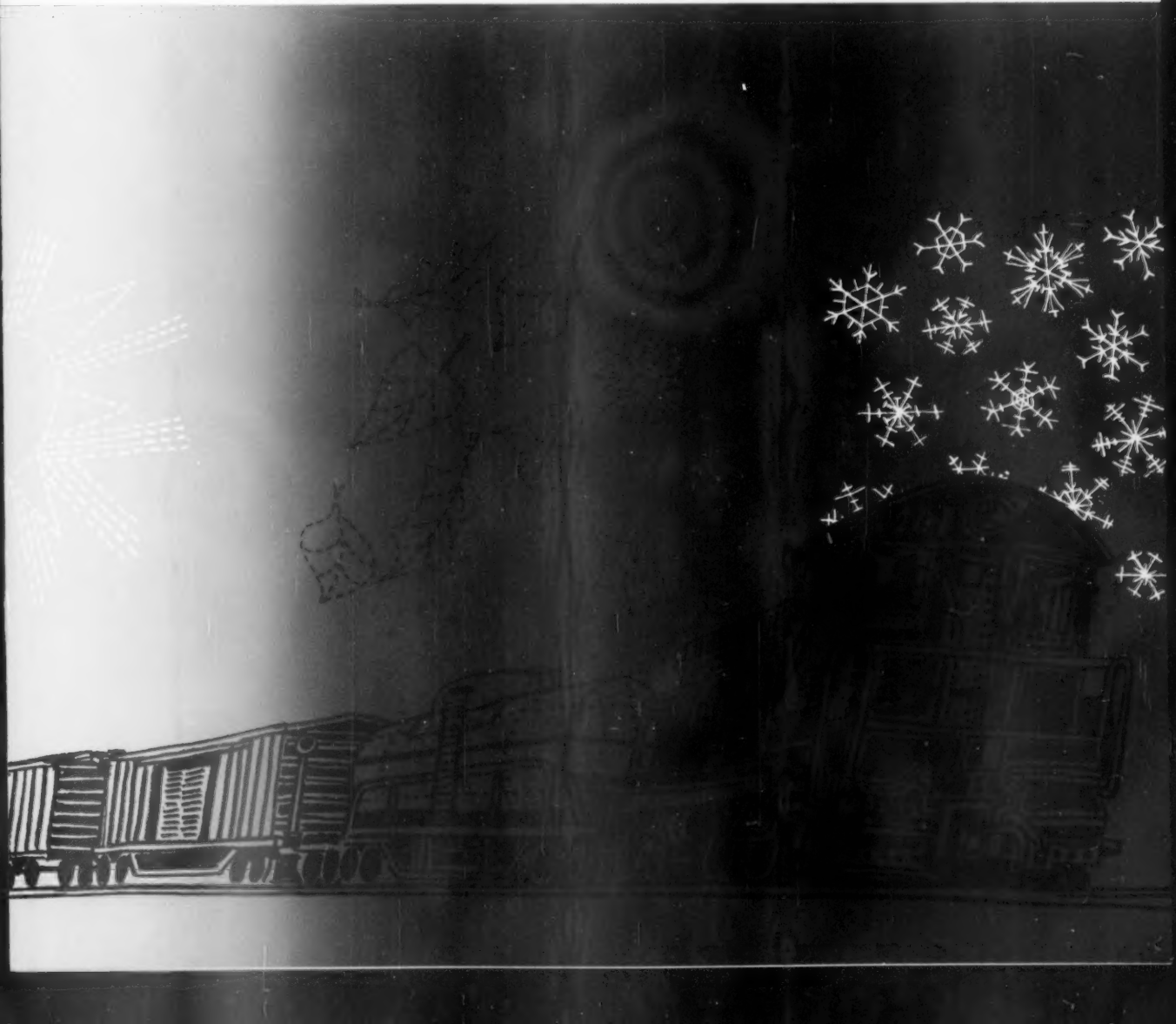
■ Metal brake shoes have set a standard for reliability in railroad braking that can be taken for granted. They have been taken for granted because metal is such a remarkably suitable material for doing the job under adverse conditions. With metal brake shoes there is no "maybe" in *your ability to stop* and *your ability to control train speed*. This reliability is available with metal brake shoes regardless of weather conditions. Safety demands such reliability.

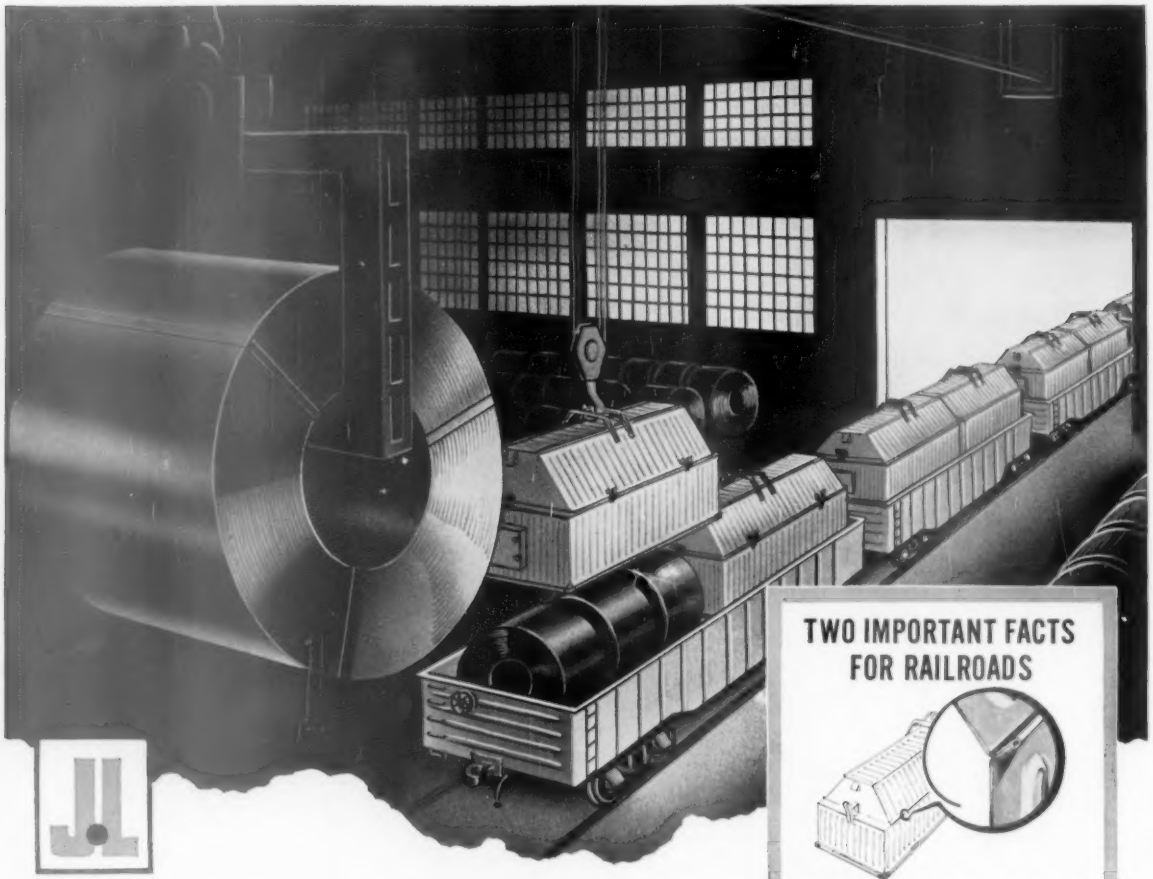
Quality Products Cut Your Ton-Mile Costs

A-7806

AMERICAN
Brake Shoe
COMPANY

RAILROAD PRODUCTS DIVISION
530 Fifth Avenue • New York 36, N. Y.
In Canada: Dominion Brake Shoe Company, Ltd.





YOCAR HOODS HELP J & L SOLVE SHIPPING PROBLEMS

Use of Yocar hoods on shipments of high quality steel coils provides savings of "$25 to $30" per car loading according to JONES & LAUGHLIN STEEL CORPORATION, ALIQUIPPA WORKS DIVISION, ALIQUIPPA, PA.

Costly dunnage and paper wrappings are eliminated — damage claims show drastic reduction — and the perfectly balanced YOCAR HOODS permit easy positioning with minimum manpower. Positive protection from weather, dirt and vandalism is also provided.

Helping you **SHIP SAFELY AT A SAVINGS** is YOCAR'S goal. Why not do something about your profit-reducing shipping problems? Specify YOCAR protection next time you ship by rail.

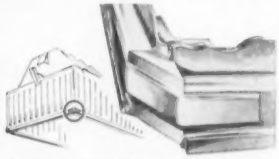
OTHER YOCAR SAFETY DEVICES	**Safe-Cargo Anchor Rails for piggy-back trailers**	**Yocar Safe-Cargo Econo-Guard increases car wall life**
	Yocar 3-section Removable Roofs	**RoLLoK Movable Bulkheads**

YOCAR

YOUNGSTOWN STEEL CAR CORPORATION • NILES, OHIO

TWO IMPORTANT FACTS FOR RAILROADS

SEAM-LOCK construction eliminates upper welded seams, where water accumulates, insuring weather-tight protection throughout the hood life. Added strength to the entire hood is achieved due to the rigidity and durability of SEAM-LOCK'S design.



CORNER-STRENGTH . . . A new corner construction makes YOCAR hoods the strongest and best constructed hoods available today. Double backing on each corner insures longer service life, for it is here that gondola hoods take the most constant beating from humping and shifting in transit.

Send for new catalog today and see how Yocar can help you solve your shipping problems.

IMPACT DAMAGE to striker, coupler and sill can be extremely expensive. Repairs of this kind cannot be done on a production line and are consequently unduly expensive and very time consuming.

DOORS ARE DAMAGED when impact moves lading against them. Even minor door damage means that any car is completely unserviceable and will require expensive repair work.

HOW TO REDUCE YOUR CAR DAMAGE *(Continued from page 30)*

of protection to car structures, because little benefit is offered to lading by draft gears having conventional operating systems, within a range of travel which is feasible for draft gears."

It has been argued that protection against occasional over-speed impacts can be provided by the coupler which takes a permanent set when a very high force comes on it. Shank deformation of the standard E coupler begins at approximately 600,000 lb. Tests have shown, however, that stresses within the car structure approach the yield point at about this same force level.

The AAR Mechanical Division has already taken steps which should reduce the amount of structural damage and its consequent drain on railroad resources. Specifications for the 24⅝-in. draft gear have been revised to require an increase in capacity from 18,000 ft lb to 36,000 ft lb, with a reaction not exceeding 500,000 lb. This specification was prepared in cooperation with the Draft Gear Manufacturers Engineering Committee. When these requirements are met, cars carrying bulk ladings should be well protected at speeds up to about 8 mph.

Because of the difference in cushioning requirements, a future step may well be adoption of two draft-gear specifications. One would be for a high-absorption gear for cars carrying fragile ladings, and another would be for the high-capacity gear for cars carrying bulk ladings of one type or another.

AAR interchange rules now require that draft gears be inspected at 10-year intervals if they are removed from cars. The conventional draft gear is very durable, but it cannot be expected to function effectively without proper maintenance and inspection. Studies by one railroad have indicated that there is a definite correlation between draft-gear aging and lading damage, with an indication that useful draft-gear life is between eight and ten years.

Long-travel gears, which are installed in a 36-in. draft gear pocket as contrasted with the 24⅝-in. standard pocket, are coming into use. Only with increased travel of the cushioning device can capacity be increased effectively without introducing high reaction forces and high accelerations within the car structure.

These long-travel gears are applicable only to new cars because it is virtually impossible to fit them in existing cars, and such installations would require complete rebuilding of the car ends. It has been possible to provide special gears with increased travel within the limitations of the conventional 24⅝-in. pocket, but this again is not a process of simple substitution.

Probably the future will see high-capacity gears for cars designed to handle bulk loads, long-travel gears for cars handling loads requiring some degree of impact protection, and sliding underframes for cars handling the most fragile ladings.

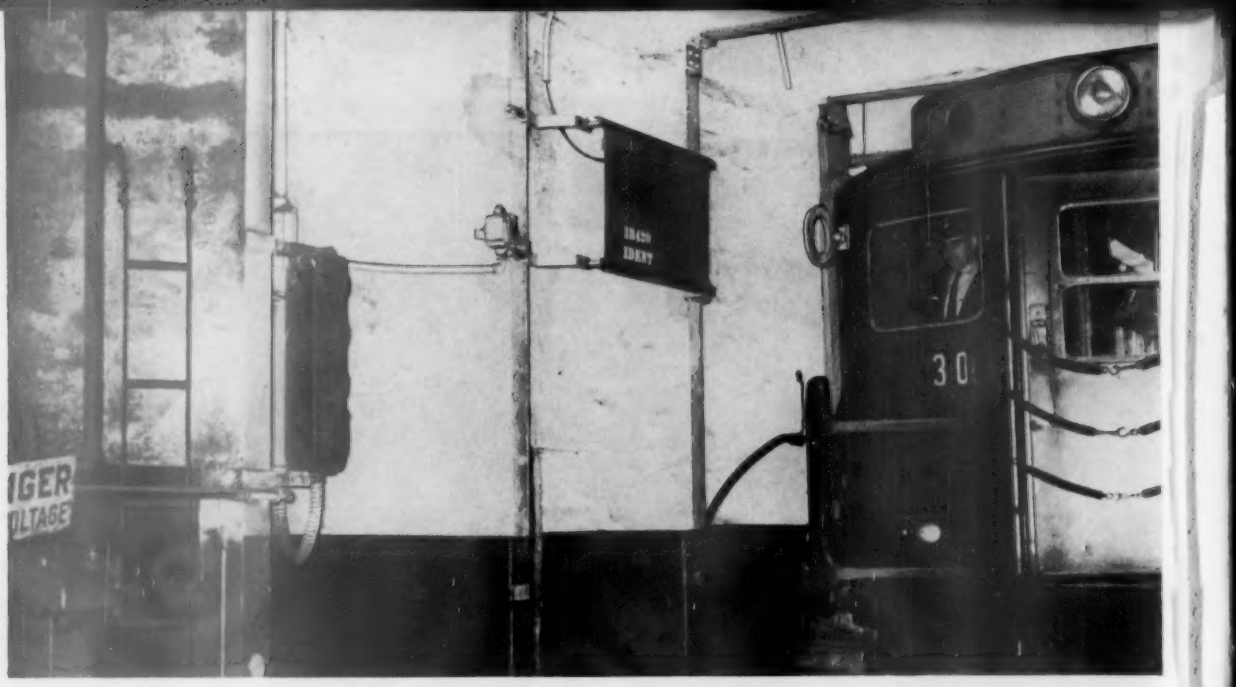
Evidences of impact damage to car structures and components are numerous. On-the-road failures, hotboxes, and high bad-order ratios are all in some part the result of inadequate cushioning and excessive coupling speeds.

Railroad managements must encourage research by their own organizations, by suppliers, and by the AAR aimed at the development of new cushioning equipment and standards. Development costs are high.

Increased cushioning capacity also costs money. Railroads have sometimes been reluctant to purchase expensive draft gears, but there are indications that savings offer a good return on the additional investment. In a highly competitive climate, mechanical officers must be permitted to make the investment in the most suitable cushioning devices, and then must be given funds to insure adequate maintenance of these devices.

When it comes to calculating the return on these expenditures, reductions in car maintenance costs should be calculated along with the reduction in lading damage.

Because of the interchange of equipment, the general level of draft-gear capacity should be of concern. It is entirely possible that AAR interchange rules will, in time, make the installation of high capacity draft gears mandatory.



Automated Transit Comes Closer

► **The Story at a Glance: The city of Philadelphia, frequent innovator in the rail transit field, has now taken a big step toward automated operation.**

A $5 million improvement project on the city-owned Broad street subway line has been completed. The job included addition of 5.21 miles of express track between Walnut-Locust and Erie (see map), and installation of an associated signal system.

The new signal system embraces a nine-selection train identification system, with which trains can take different routes without the need for towermen at interlockings.

Increasing congestion in the central portion of Philadelphia's Broad street subway line created the need for express trains to handle the traffic load. Providing additional trackage was no major problem, since a four-track right-of-way was provided between Walnut-Locust and Fern Rock when the subway was built. The city elected to install trackage along this right-of-way as far north as Erie avenue station.

This provided the necessary track capacity. But the big step was in deciding to install an extensive train-identification system ("Identra") to provide for the automatic routing of trains in the new express service.

A nine-frequency Identra system was designed specifically for the Broad street operation by Union Switch & Signal. The system consists of a demountable, train carried, inert tuned coil and wayside coils and equipment.

The train coil, carried on the upper right front of each train, includes a rotary switch which permits the choice of nine different frequencies—one for each route. All trains in service on the Broad street line, including the Ridge avenue and Camden lines, carry a coil.

At each location where train identification is desired, three sets of wayside equipment are provided: a first identification point, a second identification point, and a cancelling point. The first identification point is located sufficiently in advance of the controlled location so that switches have time to operate and signals to clear to the least restrictive indication possible.

A second identification point is located shortly before the home signal. This is necessary because, when trains have close headway, a second train may pass the first identification point before the first train passes the canceling point, and the second train would not register a route in the Identra equipment. In such a case, the closely-following second train will then select its route at the second identification point. This method is preferable to storing identifications from the first location for more than one train. For one thing, it eliminates the possibility of a storing system fault misrouting trains.

The canceling location is just past the home signal. It is a wide bandpass unit and accepts any coil tuning to clear the Identra equipment for the next train selection.

(*Continued on page 40*)

"precision must apply to planning, too!"

says FRANK E. CHESHIRE, Manager of Sales
Railway Division, International Steel Co.

"Objective planning is more than a trend—today freight carrying rolling stock needs to be designed to a *purpose.*

"Shipper requirements, increasingly wide variety of lading characteristics, mushrooming development and adaptation of loading, stowing, and discharging methods and appurtenances, the premium on time, and overall shipping costs, all dictate purposeful design.

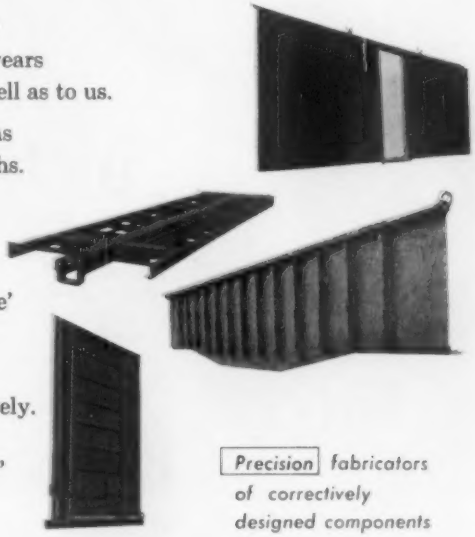
"When we started fabrication of freight car components at International Steel, our aim was to put *precision* into the design and construction of the freight car.

"Our achievements in this direction over the past ten years have been very gratifying to our customers as well as to us.

"But our aim to achieve precision in design as well as construction has led us along many paths. One of the chief elements of design (and indeed, one of the conditions for success in *any* undertaking) is definite purpose.

"An 'all-purpose' freight car is a 'no specific purpose' car for which plans are generalities. Result: limited adaptability and idle car days.

"At International Steel we plan objectively. Give us your most demanding purpose and let us put precision into its plan."



Precision fabricators of correctively designed components

INTERNATIONAL STEEL COMPANY
RAILWAY DIVISION • EVANSVILLE, IND.

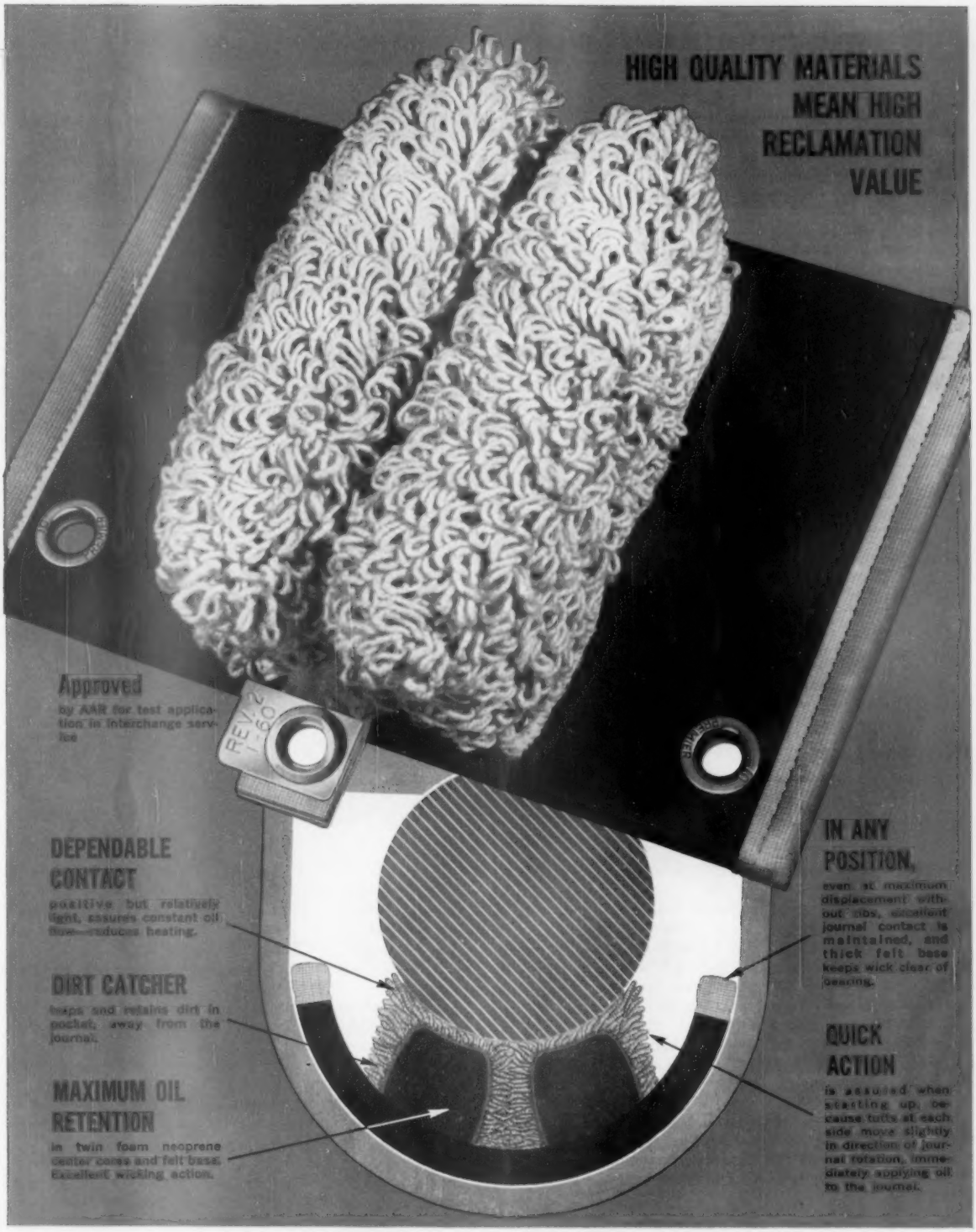
America's Railroads have given **Premier** LUBRICATORS the greatest welcome in history!

No other lubricator has made as great progress in acceptance and performance, in the same period of time, as has the PREMIER JOURNAL LUBRICATOR.

WHY?

1. Because Premier is economical—low in first cost.
2. Because Premier has very high reclamation value.
3. Because Premier is dependable. In all weather—extreme heat and extreme cold—performance is excellent.

Premier is different from all other lubricators. Entirely new simplified engineering design, pre-tested, service-proved. Best of materials, selected for fast oil delivery, high chemical stability, long life.


HIGH QUALITY MATERIALS MEAN HIGH RECLAMATION VALUE
Approved
by AAR for test application in interchange service
DEPENDABLE CONTACT
positive but relatively light, assures constant oil flow—reduces heating.
DIRT CATCHER
traps and retains dirt in pocket, away from the journal.
MAXIMUM OIL RETENTION
in twin foam neoprene center cores and felt base. Excellent wicking action.
IN ANY POSITION,
even at maximum displacement without lids, excellent journal contact is maintained, and thick felt base keeps wick clear of bearing.
QUICK ACTION
is assured when starting up, because tufts at each side move slightly in direction of journal rotation, immediately applying oil to the journal.

Pioneers in Journal Lubrication

For many years, the management of this corporation have been active in journal lubrication developments.

Premier

MANUFACTURING CORPORATION

• 4711 Baum Boulevard, Pittsburgh 13, Pa. •

Represented

in all railroad centers by qualified, capable firms.

AUTOMATED TRANSIT COMES CLOSER (Continued from page 36)

In the event an incorrect route is established due to an incorrect setting of the selector switch or to equipment failure, the motorman can change the routing at each turnout by depressing a pushbutton for the desired route. A pushbutton and a white light for each route (switch normal, switch reversed) is mounted 11 ft in advance of the home signal governing moves over that switch. It is required that the motorman notify the dispatcher whenever it is necessary to change the route, so corrective action may be undertaken. Once the selector on the train coil is positioned at the beginning of a tour of duty, it need only be changed if the terminals of the run change. The motorman carries the coil from one end of the train to the other at each terminal.

The Erie avenue interlocking is the busiest on the system. This point is the north end of the express tracks; both express and local trains may turn back here.

Local turn-back tracks are located on an upper level. The all-relay interlocking has a miniature free lever control machine which can control all switch and signal functions in the interlocking. While the machine is not large by railroad standards, it has been determined that with trains on two-minute headways on four tracks, one man alone would have to be extremely alert to operate the machine manually.

Automatic or Manual

The interlocking circuits are so designed that either automatic or manual operation may be selected by a master lever. When the interlocking is in automatic operation, it operates with an unattended tower. Routes are then established by the Identra train identification system and track occupancy.

Time requirements made it necessary to put the system into service upon completion of construction, with little test operation. As might be expected in a system as new and complex as this one, some bugs developed. One was the operation of the train identification cancel unit on the express track by the passage of a train on the local track. This problem was solved by installing a shield of sheet metal on the supporting columns between the express and local tracks. Similar considerations required the decision to have the motorman carry the coil from one end of the train to the other at the terminals. If coils had been used at both ends of a train, the coil on the rear end of a local train would be almost the same distance from the wayside identification coils on the express track as the express train coil. All the difficulties were soon eliminated and the system is now operating smoothly.

The system was installed under the jurisdiction of J. W. Boorse, superintendent of power, Philadelphia Transportation Co., and H. V. Varani, director of architecture and engineering, city of Philadelphia.

Railroading After Hours with Jim Lyne

TRAFFIC DIVERSION STOPPED—I have just been looking at the annual report of the California Public Utilities Commission, which records some good news. Railroad "carriers of property" in that state in 1959 raised their ratio of gross revenue to that of all freight carriers in the state to 13.7% of the total (from 13.4% in the preceding year).

This is not a spectacular increase—but it becomes pretty exciting when compared to the steady downward drift of the railroad ratio for the preceding decade. In 1949, the railroad ratio was 22% of the total—and year by year it fell, until 1959, when the decline was stopped and a slight increase was recorded.

California is growing so fast, that if you get a growing ratio to total traffic in a place like that, you've got something. In raising their ratio of gross revenues from 13.4% to 13.7%, California railroads got an increase of $14,800,000 in freight revenue.

PROGRAM VARIETY—I no sooner got something into print about how the railroad public relations officers go in for outside talent at their annual meetings, until I took a look a the program of the P&S division, AAR. They must have had a dozen units of outside talent at their get-together. And now I have a note from Joe Singer of the C&O pointing out that the railroad advertising managers at their May session harkened to other voices besides their own.

I have seen some of these association programs in the planning stage, and it seems to me they usually succeed in direct proportion to the imagination and initiative of the arrangers.

CITIES IN TROUBLE—I see where the recent census is confirming the prediction that a lot of major cities would decline in population—to the benefit of their suburbs, most of which are growing fast.

Meantime, the costs of city government—schools especially—are mounting rapidly. More expenses and fewer people to pay them. A large part of the solution would be to put all publicly provided plant (including highways) on a basis of fully compensatory charges, to be levied on the users.

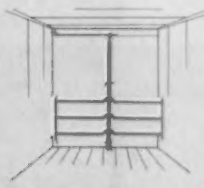
AIR SAFETY—The air transportation people are worried about safety—and, as an occasional customer of theirs, I'm glad they're concerned. But who's going to put up the money?

Harry Guggenheim, who heads the Cornell aviation safety center, complains of the "financial plight" of the airlines. The industry earned a mere 9.6% on its net assets in 1959—or 2.8 times as much as railroads earned on their net assets in the same year.

As long as railroads have to pay for railroad safety protection out of charges to customers, what's wrong with financing flight safety in the same old-fashioned way?

at San Francisco, see 5 GIANT STEPS...

PERFECTION REEFER TRAILER. New concept in refrigerated trailers with structural insulation that achieves new performance levels in controlled cold for highway and piggyback perishable movement. Available exclusively through R-T.



DORSAVER. A first in piggyback, a boon to the entire trucking industry . . . from Rail-Trailer. DORSAVER will end trailer door damage from cargo movement!

R-T FLAT CAR. Part of the Rail-Trailer leasing program . . . today's finest piggyback flat car. Incorporates R-T refinements for more efficiency in car loading and movement!

COMMANDO Rail-ER. Now available from Rail-Trailer. The new piggyback trailer handling unit developed by Ottawa Steel Division and R-T. Offers double the performance of present equipment!

ASF HYDRA-LIFT*. The advanced 5th wheel by Rail-Trailer is now universally performing more efficient piggyback carloading and trailer spotting.

*The trademark "Hydra-Lift" is the property of American Steel Foundries.

by the "Pioneer in Piggyback"

Major advances come from Rail-Trailer. First case in point—the Perfection Refrigerated Trailer that offers great new efficiency in perishable protection. The Perfection Trailer body is formed by one continuous wall of lightweight structural insulation. Truly the "reefer extraordinary" . . . the Perfection Reefer is for sale or lease through Rail-Trailer.

Now, in addition to trailers in the R-T leasing division, 85 foot piggyback flatcars . . . with exclusive R-T features . . . are available for lease.

Another R-T giant step forward is the Commando Rail-ER —specialized tractor for swift piggyback terminal trailer movement. Rail-ER features torque conversion to eliminate damage from trailer slamming or jack rabbit starts. For sale or lease.

Years in development by R-T, the Hydra-Lift 5th Wheel won't raise or lower accidentally. Widely accepted in the transportation industry, Hydra-Lift is a contribution to modern piggyback terminal operation by R-T. For sale.

The R-T Trailer DORSAVER is a development of vast importance to all piggyback users. DORSAVER eliminates the problem of damage to truck and trailer doors through cargo shift! DORSAVER is an exclusive product for sale by Rail-Trailer.

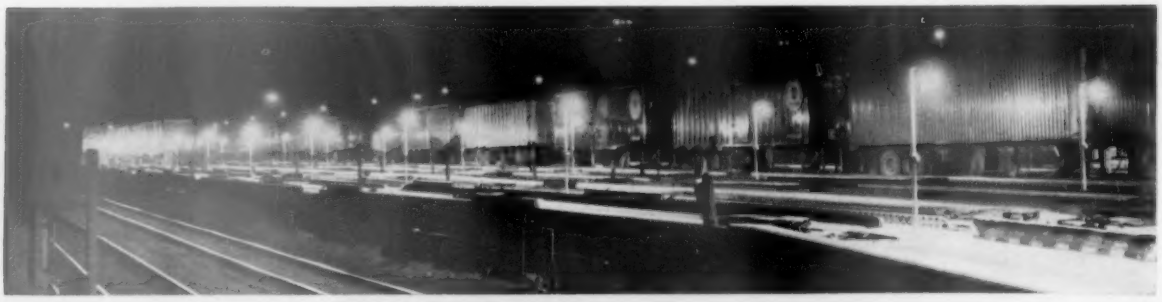
These latest giant steps are but a few of the ever-expanding Rail-Trailer services. When your firm contemplates efficient piggyback (including large-scale piggyback terminal operation), we urge that you communicate with . . .

Rail-Trailer®

221 N. LaSalle Street
Chicago 1, Illinois

5421

New Lighting Lets TOFC . . .



. . . Yard Work Round-the-Clock

► **The Story at a Glance: The rolling boom in piggyback traffic has placed more and more terminal operations on a round-the-clock basis. Loading and securing trailers is close work. It requires high-grade lighting facilities.**

How the Pennsylvania handled the problem at its busy Chicago TrucTrain terminal has been outlined for Railway Age by N. J. DalCerro, electrical foreman in the PRR's Chicago District.

PRR's Chicago piggyback yard is currently handling 5,500 to 6,000 trailers a month. Volume like this requires operating the TrucTrain Terminal daily on a 24-hour basis.

To prevent accidents, to facilitate security inspection and to assure efficient operation at night, adequate lighting is essential. PRR chose three kinds of fixtures to do the job.

The top picture is a night view of the entire yard. Fluorescent luminaires in the foreground, mercury luminaires in the background and Suburbanaire luminaires in the loading ramp area provide the necessary level of light for each part of the operation. The loading ramp, in the lower picture, gets high-level lighting over the entire ramp area, as well as under the trailers, from the low-mounted Suburbanaire luminaires.

The fluorescent luminaires are used to illuminate the entrance and front parking area. These are four-lamp, six-foot fluorescent fixtures. The rear parking area is lighted by 400-watt mercury fixtures. Lighting in the loading area is supplied by open-refractor, Suburbanaire luminaires operating 400-watt mercury lamps. All fixtures are manufactured by Line Material Industries.

Loading ramp characteristics presented the major problem. The lighting system had to meet two basic requirements: workmen under the trailers needed lots of light to position retractable trailer hitches and to secure trailers to flat cars. In addition, drivers needed adequate lighting to guide backing trailers onto the cars.

From tests of a variety of methods, PRR drew up a set of lighting specifications. These required that four conditions be met. Lighting fixtures had to provide sufficient engine clearance; they could not interfere with workmen; they could not be mounted in the driver's line of vision; they had to be easily maintained. Suburbanaire luminaires installed at an 8-foot mounting height fulfilled the specifications. Fixtures were staggered to compensate for varying lengths of cars and trailers.

Electrical distribution for the yard is 3-wire, 240-volt multiple circuits. Two-lamp constant wattage ballasts are utilized for the Suburbanaire luminaires. These are located under the walkway, midway between adjacent fixtures.

Each luminaire standard in the loading ramp area is equipped with an electrical and an air outlet to provide power for automatic wrenches. A centrally located control cabinet houses manually operated relays and breakers that energize the power outlets and the lighting system.

"We feel that the lighting system is primarily responsible for reducing accidents and increasing efficiency," Mr. DalCerro says. "Therefore, when plans are made to increase the capacity of our present facilities, lighting will be an integral part of the expansion program."

WAGE AWARD REVIVES RULES ISSUE *(Continued from page 10)*

rates and continuation of the cost-of-living escalator. (ORC&B and SUNA served similar demands almost simultaneously and BRT and BLF&E came in later with demands for 14%.) Carrier counter-proposals uniformly asked for 15-cent per hour reductions in wages and cancellation of the escalator provision.

Direct negotiation, on the individual properties and at conference committee level, got nowhere and the National Mediation Board entered the BLE dispute late last September. Both the carriers and the organization accepted a proffer of arbitration early in February, after NMB efforts also failed to produce a settlement.

The arbitration board began hearings in Chicago April 5, under an agreement calling for an award within 40 days. The time limit was later extended to June 10 by mutual consent.

While the Engineers' dispute was in arbitration, both the non-ops and the Switchmen pressed their demands to the point where the NMB certified both cases to the President and emergency boards were appointed.

The non-op emergency board, which recommended a direct wage hike of five cents an hour, passed upon demands of 11 unions representing the non-operating employees. These demands called for incorporation of the escalator-clause increases, amounting to 17 cents per hour, into the basic rate, which the board recommended, and an additional increase of 25 cents per hour.

Also involved were the railroads' counterproposals to cancel the escalator-clause increases and then cut the basic rates 15 cents per hour. The unions' other proposals also drew counter-proposals from the carrier.

The board's recommendations as to these other proposals are not specific. They merely call for further negotiations between the parties with a view toward liberalizing the health and welfare programs and other benefits involved. Thus there is no estimate as to what the cost of the whole package would be.

The board feels that it followed the pattern of the BLE arbitration award, indicating that it thinks "wage equivalents" resulting from the proposed negotiations would amount to something like another 5 cents per hour, effective sometime next year. The report said:

"The board's recommendations on the health and welfare issues are made in lieu of a recommendation for a further general wage increase, effective in early 1961, the recommended additional contributions by the carriers to the health and welfare program being regarded by the board as wage equivalents."

Cost of the recommended 5-cent wage increase was put at $58 million. George E. Leighty, president of the Order of Railroad Telegraphers and chairman of bargainers for the non-ops, said representatives of the 11 interested unions would meet within a week or 10 days to consider the report.

Mr. Leighty had previously refused to comment on the BLE arbitration award. Asked about it at a June 3 press conference, which he held in Washington, Mr. Leighty's only reply was: "Just say I smiled." He went on to say that when the non-ops asked for a 25-cent wage increase, they were "not fooling."

If the unions decide to seek more than the board recommends, they will find support for that approach in the report. It said:

"This board is not an arbitration board. . . . Its report, including recommendations, is designed to facilitate the subsequent and further collective bargaining of the parties. The report is not intended to write the precise language of the collective bargaining agreement nor to determine the exact terms of settlement of the disputes between the parties. Rather, it is designed to suggest a relatively narrow area of settlement which the parties should explore constructively. The purpose of the board is to present the facts, appropriate standards, and suggestions, in the hope that these will persuade the parties to reach an agreement."

That approach, of course, is called for by the board's health and welfare recommendations which are:

That the parties negotiate the following improvements, effective with the new policy year of their contract with the insurer:

(a) An increase in the contribution by the carriers to the special health and welfare account in an amount necessary to insure its financial integrity over the period ahead.

(b) Additional contributions by the carriers to equalize dependents' benefits with employee benefits, except with respect to benefits that may result in disproportionate costs.

(c) Additional contributions by the carriers to provide group life insurance benefits.

(d) If mutually determined by the parties to be within reasonable limits, additional contributions by the carriers to provide extension of employee benefits to furloughed employees for a period of three months, and to pay for the costs of injuries and illnesses arising out of employment.

As to vacations, the board recommended that the present requirement of five years' service for a two-week vacation be reduced to three years. It recommended no change in the present requirements of one year's service for a one-week vacation and 15 years' service for a three-week vacation. Nor did it recommend extending the maximum vacation to four weeks. It did, however, recommend liberalizing rules covering eligibility for vacations and for holiday pay.

No increase in the present number of seven paid holidays per year was recommended. And the issue of holiday pay for dining car employees was returned to the parties without recommendation "because of lack of sufficient evidence."

In its review of evidence as to the financial condition of the railroads, the board found the parties "poles apart" on that issue.

It went on to comment on the adverse effect on railroads of public transport policies and to call for more labor-management cooperation in that area.

"The changes in the railroad industry in the past decade," the report said, "have created even greater issues for public policy, and a large part of the growing difficulties of the parties in collective bargaining reflects a failure to develop adequate national policies for the railroads and for a coordinated transportation system. Just as the parties to collective bargaining have been confronted by many serious problems arising from the rapid change in technology and markets, so have legislative and regulatory bodies, national and local. . .

"These problems are clearly beyond the scope of the board's inquiry, although they decisively affect the parties and their collective bargaining. They also circumscribe the recommendations of this board, but the public, and public officials, need to understand that the failure to treat decisively and in the immediate future such issues of a national transportation policy is certain to result in considerably greater conflict in collective bargaining between the parties in the future.

"The carriers and the organizations have a great responsibility to work cooperatively for more comprehensive and forward-looking public policies, but they have not done so. The suggestion of the President and of the secretary of labor for joint bodies for continuing study of common problems, and for labor-management cooperation on an industry basis, merits adoption in the railroad industry."

Members of the emergency board were: Chairman John T. Dunlop, professor at Harvard University; Judge Arthur W. Sempliner of Detroit, Mich.; and Benjamin Aaron, professional arbitrator of Los Angeles, Calif.

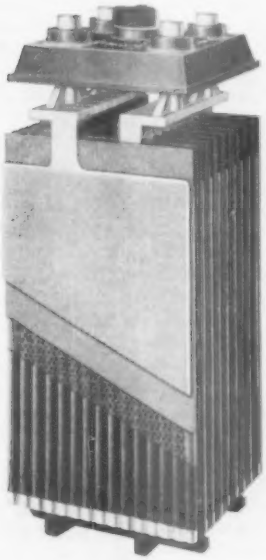
NEW FROM EDISON

INTRODUCING THE NEW BATTERIES THAT

INCREASE RAILROAD EFFICIENCY
REDUCE RAILROAD COSTS

NEW EDISON Dynaclad

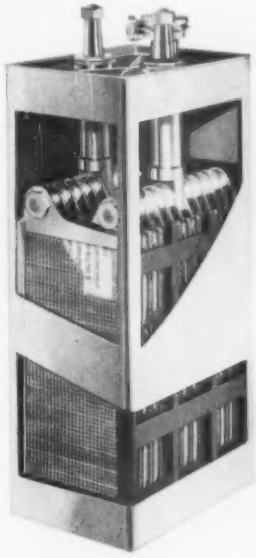
for Diesel Engine Starting



Costs go down with the most advanced lead-acid battery for railroad diesel service on the market today! Designed with years-ahead features, EDISON Dynaclad is made for dependable starting. Its unique, *truly superior positive plate construction* assures outstanding performance... far longer life. Quality — the hallmark of products from EDISON — is built right into Dynaclad.

NEW EDISON Nickel-Cadmium

for Communications,
Car Lighting
Emergency Power Systems
Signal Equipment



Specifically engineered for low temperature applications, this great new alkaline battery has the famous EDISON Original Tubular Positive Plate. The negative plate contains new, highly improved cadmium active material... covered by U.S. Patent No. 2,727,080. The result: *the first tubular-positive, pocket-cadmium battery capable of longer life under deep-cycle operation!*

FAMOUS QUALITY EDISON Nickel-Iron

for Communications, Car
Lighting, Air Conditioning
Multiple Unit Controls
Signal Equipment
Industrial Trucks & Tractors

Famous for over 50 years as the longest-lived, most dependable storage battery, the EDISON Nickel-Iron Battery now contains new patented active material. Proved in the field, today's EDISON Nickel-Iron Battery offers even longer life and greater-than-ever protection against the rigors of railroad service.

EDISON THE FIRST MAJOR MANUFACTURER TO OFFER RAILROADS A FAMILY OF BATTERIES

Be Sure to See These Great New Batteries... learn about what they mean to you in terms of increased efficiency and lower costs... at the REMSA Exposition, Jack Tar Hotel, San Francisco, June 13th thru 16th, Booth Nos. 201 and 202.

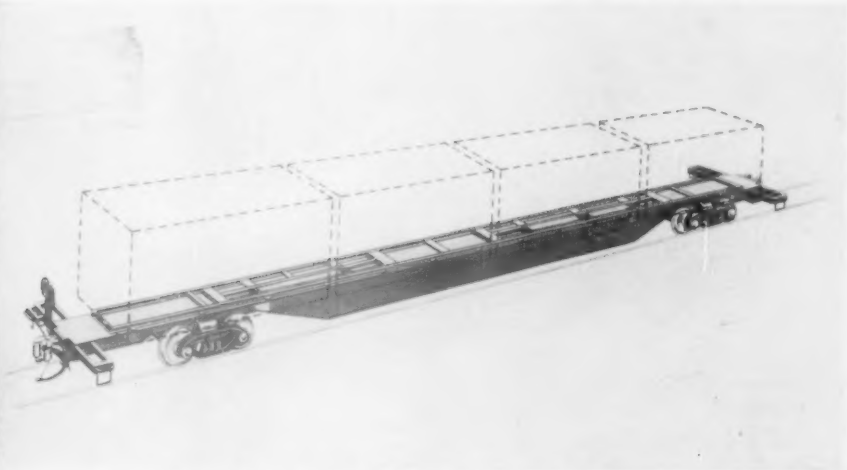
In Canada: CLM Industries
Division of McGraw-Edison (Canada) Ltd.
Toronto 13, Ontario

Storage Battery Division
Thomas A. Edison Industries
West Orange, New Jersey, U.S.A.

McGRAW EDISON

1. **HYDROFRAME-60 CONTAINER CAR** is aptly described as a skeleton car. It's a center sill, a pair of standard trucks and a container frame with long-travel hydraulic cushion device.

P-S Cushions Containers' Ride



2. **CONTAINER CAR WILL CARRY** two 40-ft units or four 19½-ft boxes, up to a total maximum container weight of 124,000 lb.

3. **HYDROFRAME-60 BOX CAR** (a demonstrator) will also be exhibited in San Francisco this week (June 13-16), before moving to Western Pacific for try-out. Southern has ordered 200 such cars, equipped with 30-inch travel cushion underframe (RA, April 25, p. 55; May 2, p. 36).

Two 40-ft containers (or four 19½-ft units) ride in cushioned comfort on Pullman-Standard's new Hydroframe-60 "skeleton" container car.

Designed solely for container movement, the car consists simply of standard trucks and a box girder center sill on which is mounted a container frame with a long-travel hydraulic cushion. The hydraulic unit provides a total 60-in. movement, 30 in. in either direction. It's mounted between the center sill and the I-beam container frame. As the frame slides, the cushion unit is compressed between lugs on the sill and on the frame.

According to P-S, the cushion has sufficient capacity to reduce impact forces on the containers to less than 1-G acceleration with an impact speed of 10 mph. This, Pullman says, results in forces comparable to those encountered in highway operation when an emergency brake application is made.

The car is 87 ft in length over strikers and 3 ft 5½ in. in height from top of rail to top of sill. Approximate light weight is 45,000 lb. Containers and lading may weigh up to 124,000 lb.

Container mounting is standard for highway-rail operation. The frame supporting the boxes is 39½ in. wide, same as chassis rails in truck service.

The Hydroframe-60 container car is part of a coordinated transportation package to be displayed by P-S this week (June 13-16) in San Francisco.

Other components in the Pullman package: New Lo-Dek piggyback flat car (RA, May 30, p. 64); a Trailmobile refrigerated container and tandem axle chassis; the Protectoframe-20 cushioned container cradle; a Trailmobile high-cube LTL piggyback trailer; and a mobile crane, designed by Pacific Coast Engineering for trailer-container rail-highway transfer.

Superintendent: RR's 'Key Man'

► **The Story at a Glance: Railroad superintendents are used to hearing about their obligations to management. But Wabash President Herman H. Pevler last week went a step farther, to demonstrate that any management which wants a job done well will also recognize its vital obligations to the superintendent.**

In effect, he said, management owes its operating officers the loyalty, confidence and support befitting the superintendent's status as "the key man on any man's railroad."

An unusual "charge"—one which New York Central Vice President Douglass Campbell later called the "most thought-provoking" in his recollection—greeted members of the American Association of Railroad Superintendents as their annual meeting opened in St. Louis.

Wabash President Pevler began his charge in conventional fashion, outlining the qualifications which make up a good superintendent (and borrowing in part, he confessed, from a charge made 21 years ago by Pennsylvania Board Chairman James M. Symes, then a general manager).

But, Mr. Pevler emphasized, "management cannot expect good performance without carrying out its obligations to the superintendent." These are the ones he outlined:

- Loyalty.
- Proper communication—not merely the transmittal of bare policy, orders or instructions but also the reasoning behind such moves.
- Free communication in the reverse direction. The superintendent, Mr. Pevler commented, "should keep management fully informed, and it is management's obligation to listen and analyze carefully his communications. This is the function of management that is too often slighted. Top management is too prone to be concerned with problems they see or which come to them from outside sources and will delay absorbing the information that comes to them up through their organization."
- Provision of the proper tools and equipment "to permit the superintendent economically to do his job . . . [his] requests should be very carefully considered in making any decisions regarding his facilities."
- Delegation of the "fullest possible authority for the operations in [the superintendent's] territory." This should be done, Mr. Pevler noted, "in such a manner that it encourages initiative on the part of the superintendent and enhances his prestige with the employees under his jurisdiction, which will have the effect of improving discipline and morale."
- Support "to the fullest possible extent in matters of labor relations and discipline."
- Backing from management in building up the superintendent in his area. When top carrier officers visit shippers, political officials or other contacts in the field, "the superintendent should accompany his superior. On these occasions he should be given all of the build-up possible with these contacts in order that they may know that when they deal with the superintendent they're dealing with the proper officer on the railroad."

Mr. Pevler's recognition of the superintendent's role was echoed a day later by a second railroad president, Monon's Carl A. Bick, who addressed the association's annual luncheon meeting.

Superintendents, Mr. Bick pointed out, "are the men in direct charge of the operation of $27,520,000,000 of capital investment in railroad property. Without [their] skills, those in higher management levels are as helpless to obtain results as a general who orders action from an army that exists only in the Tables of Organization."

Monon's president particularly urged the operating men to accept the responsibility, however difficult, for maintaining efficient—and economical—divisional operations.

"You, and you alone," he declared, "know which of the operations on your division are marginal and must be discontinued when operating costs rise or revenues fall. Your failure to act inevitably will result in decisions affecting your division's operations being made by men far less familiar with your segment of the railroad . . . This will give you a far more difficult division to operate than if you or your staff had selected the economies to be made.

"The line supervisors who promptly and effectively make their own economies are far more satisfied and operate far more efficiently than those who wait for a staff officer to tell them which economies to make. Further, the line officer who carries out his own economies is still the boss of his division or operation, but the one on whom such economies are imposed from above has lost some of his authority with his own men—for, have no doubt, they know substantially what happened even though they may have a distorted version of the events."

During the current period of railroad operation, Mr. Bick added, the line officer's function "must be to conserve what we have—our needed properties and services—by consistent pruning of that which is of no value . . . At the same time, he must leave intact and even improve those services which are used, in order that more traffic can be attracted."

Presidents Pevler and Bick got support from two industrial traffic men—T. R. Atchison, director of transportation, Ralston Purina Co.; and G. W. Wright, traffic manager, International Salt Co.—in stressing the traffic aspects of the superintendent's job.

In particular, Mr. Atchison urged establishment of dependable, consistent service—which he called "the factor most apt to hold traffic now moving at or near a competitive rate." He listed the following guideposts for improved service:

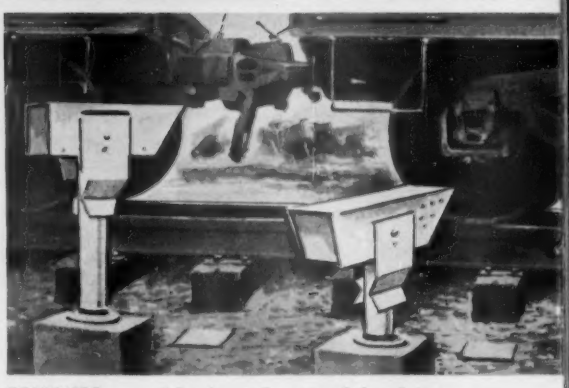
- The superintendent should know shippers' management personnel in his area and should be familiar with the shippers' operations.
- Switching schedules should be arranged for maximum mutual convenience—then, "live up to the schedule and insist that we do."
- Carriers should avoid adversely affecting intermediate points in connection with speed-ups in terminal-to-terminal service. The feed industry, for example, has a vital interest in service provided to rural areas, both mainline and branch line points.
- Railroads "should learn to live and work together as an industry."

Mr. Wright concentrated his efforts on enlisting the superintendents' aid in stepping up the nation-wide clean-car campaign—a drive designed to reduce staggering losses in expense to the railroads and in wasted car-days. Based on recent estimates, he noted, car cleaning costs the railroads about $72 million annually—and it accounts for about 14 million car-days lost.

Free-wheeling discussion of six subject committee reports (RA, June 6, p. 19); an inspection tour of the TRRA and the A&S; and election of 1960-61 officers rounded out the superintendents' three-day meeting—first to be held in St. Louis since 1931.

A. J. Cowie, superintendent, Canadian Pacific, at Regina, Sask., was named president of the association, succeeding C. C. Robinson, superintendent, car service, Monon, at Lafayette, Ind.

HOT-BOX DETECTORS



SCANNERS are of horizontal or track-level type (the latter mount on either tie or concrete pad).

Spot overheating journals early ...save up to $300 per axle

One Eastern railroad figures that each potential hot box spotted *soon enough* saves the cost of a wheel change—up to $300 per axle. General Electric hot-box detectors can help you effect comparable savings by finding "beginning-to-heat" journals in time to repack and avoid wheel change. *Early* detection is one way the General Electric system can save you money. Here are others:

Reliable performance has been a strict design objective with General Electric hot-box detectors. Operating dependability stems from . . .

- Accurate detection at train speeds from 7 to 70 mph, at ambient temperatures from −40 to 125F.
- Designed to railroad requirements—rugged all-weather construction, high resistance to dirt, corrosion, vibration, or impact.
- Sensitive scanner does not confuse hot boxes with heating brakes, or other extraneous heat.
- Frequency Modulated (FM) Carrier Current transmits clear signal over long distance; not affected by static which can distort AM carrier systems.
- Axle counter and alarm quickly alerts your operator to hot box, tells him where it is located.
- Transistorized construction contributes to reliability, superior performance, small size.

One-day installation is normal for the General Electric system because . . .

- All system units come independently housed, requiring only mounting and interconnections.
- Scanners mount quickly.
- System connects to 110-V trackside power.
- Built-in test circuitry speeds check-out.
- Tools provided for easy alignment.

Minimum maintenance—normally restricted to cleaning scanner lens and checking alignment for trouble-free service. If necessary, component change is easy because of ready access to unitized sub-assemblies. System needs only a nominal spare parts inventory, which is backed by complete factory repair service.

Extra values—Only General Electric offers this complete hot-box detector "package"—a product with the accuracy and ruggedness to meet high railroad standards . . . backed by a nationwide sales and service organization including . . .

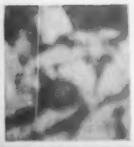
- Experienced G-E Application Engineers to help you plan your system.
- General Electric Service Engineers to get your system off to correct start, with complete initial system checkout.
- Factory training to teach your operating people to install, operate, and maintain the system.

We'd like to tell you more about the savings you can make and discuss other benefits the General Electric system can offer. Call your nearby G-E Sales Engineer, or write for Bulletin GEA-6950, to Section 793-03, General Electric Co., Schenectady, N. Y. Specialty Control Dept., Waynesboro, Va.

GENERAL ELECTRIC

AXLE COUNTER AND ALARM alerts operator to faulty journal, spots it for him with accurate axle count.

110-V POWER at trackside is all the General Electric system needs. The detector uses a low 200 watts power.



'Positive' PR Program Urged

► **The Story at a Glance: Railroad public relations efforts apparently are shifting toward stronger emphasis on telling the industry's "positive" story. Some top executives seem to think the industry has leaned too heavily on what they call the "crying towel" approach.**

Speeches at last week's convention of the Railroad Public Relations Association pointed up this new thinking.

These railroad executives suggest that public support for the railroads can be best obtained if the industry is pictured as "doing the best we can with what we've got."

"I don't know of any industry in the world that has greater need of a broadgage and continuing public relations effort than does the American railroads. The individual is interested in anything that is in his own self-interest, and railroads are doing many things, including the current merger studies, that can be told on that basis."

This comment by Atlantic Coast Line President W. T. Rice marked the opening of the eighth annual meeting of railroad public relations officers last week. In three days these officers took a look at the "challenge of the sixties" and came away with impressions like these:

From Jervis Langdon, Jr., vice president and general counsel, B&O: Is it wise for railroads to emphasize legislative goals which aim at equalizing regulation and ending today's basically unfair competitive situation? Would regulation of our competitors and imposition of adequate user charges put us all back on our feet?

Competition May Grow

Actually, if the trucking of agricultural commodities and the water movement of bulk commodities have sound economic bases, they will continue to grow and regulation might well stimulate that growth. The only way railroads can compete is to be free to demonstrate an even sounder economic base and to demonstrate it in fact.

Instead of spending our energies trying to make life harder for our competitors, it might be preferable to concentrate on making certain railroads are free to advance. Rail carriers must develop proposals that reflect sound economics and thereby begin to qualify themselves for less and less regulation. In order to eventually win the chance to manage our own affairs, it is essential that we first demonstrate a growing capacity to do so.

From D. W. Brosnan, operating vice president, Southern: We are in a growth position but we are not going to have prosperity legislated for us. We could use less legislation, but meanwhile let's use the opportunities we have already.

There are many ways that railroads can reduce costs, and improve service, with neither legislation nor labor entering the picture. To the extent we make a good record, and rock the competition, we will make friends who will talk for us. Costs are what we have to fight, and the way to do it is eliminate waste.

Example: The Southern has bought 100-ton aluminum cars and is using them to haul coal—average load, 111 tons per car. Loaded cars must be billed out in 24 hours; they move to destination overnight; and must be unloaded in 24 hours after placement. Earnings are such that the cars will pay for themselves in less than two years. Similar arrangements are possible with many other bulk commodities and, in every case, high loads per car, combined with turnaround, reduce costs.

From J. E. Gilliland, vice president, traffic, Frisco: We must drop our "Moses in the bulrushes" act, and instead of waiting for somebody to come and find us, we must strike out for ourselves.

There is encouragement, and evidence now of positive action, in areas such as these: expanded education and training of our sales forces; the use of incentive rates to improve car-mile earnings; containerization and piggyback; and the controversial idea of joint rates with other forms of transportation.

Whole market areas exist, merely awaiting developments that will permit railroads to serve them. Examples: the $700 million spent annually to transport household goods; the handling of small pleasure boats, now being produced at a rate of 2,000,000 a year; and the annual output of 200,000 mobile homes which have to be moved to all parts of the country.

From Thomas Parker, Jr., director of personnel administration, Central of Georgia: The central issue in the current work-rule case is management's right to manage. This "right to manage" raises many questions, including one of whether management has failed to do an aggressive job in communicating with employees.

Since these employees are reached constantly with the union story, would it not be desirable to allot a larger portion of the public relations job to telling the railroad story where it matters most —to the work force itself?

Elsewhere in the RPRA meeting, the group's president, James G. Shea, general public relations manager, SP, pointed out that the public relations officer can usually shape his job into four principal categories: employee relations, community relations, political relations and management relations. There is positive work to be done in each of these areas, with employee relations ranking, at the moment, as perhaps the most urgent.

Mr. Shea's views on the need for building improved communications with employees were closely parallel to those expressed by Mr. Parker. "Our problem," he said, "is to develop an efficient system of communications, so that our first-line supervisors will be able to talk with the people under their jurisdiction as effectively as the local chairmen and grievance men."

What Lies Ahead

Other speakers at last week's meeting undertook to outline economic changes which present trends indicate are likely in the next decade. These assignments were handled by Dr. Emerson P. Schmidt, chief economist, U. S. Chamber of Commerce, and Edward J. Green, vice president, planning and marketing, Westinghouse Air Brake Co.

Mr. Green pointed out that management today embraces three elements that are in constant use—planning, evaluation and execution. Every manager at every level must do these things constantly if he's to be successful.

At the final session on June 8, W. H. Schmidt, Jr., director of public relations, B&O, was elected president for the coming year to succeed Mr. Shea.

Other new officers are Wallace W. Abbey, director of public relations, Soo Line, western vice president; Donald T. Martin, director of public relations and advertising, ACL, southern vice president; and John K. Murphy, director of public relations, PRR, eastern vice president. Harold H. Baetjer, special representative, AAR, was reelected secretary-treasurer.

The group also approved amendment of bylaws to provide for associate memberships in RPRA. This category will embrace eligible public relations officers of railway supply companies, and representatives of firms providing public relations counseling and services to railroads.

CATERPILLAR ANNOUNCES 2 NEW TRAXCAVATORS

with Power Shift Transmission and Live Action Hydraulics

977H 150 HP 2½ cu. yd. bucket

955H 100 HP 1¾ cu. yd. bucket

There is a way to beat higher costs—and that's with increased production. For tractor-loader jobs, here's your answer in the new Cat Series H 977 and 955 Traxcavators. Designed to set a pace far faster than the models they replace (and other makes of comparable size), they're milestones in tractor-loader progress. With power shift transmission and Live Action Hydraulics, they're *the loaders that never stop.* Get the facts about them from your Caterpillar Dealer. Ask for a demonstration, too. See for yourself how they set new production figures on the toughest kind of job.

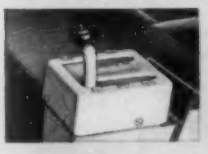
Caterpillar Tractor Co., General Offices, Peoria, Illinois, U.S.A.

CATERPILLAR

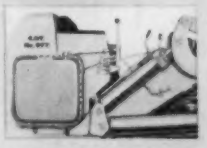
Caterpillar, Cat and Traxcavator are Registered Trademarks of Caterpillar Tractor Co.

TRAXCAVATORS ARE MAKING OTHER LOADERS OBSOLETE

NEW FEATURES SPEED LOADING, LIFTING, HAULING, DUMPING . . . THE FULL CYCLE



NEW POWER SHIFT TRANSMISSION. One lever—that's right, one lever gives split-second changes in speed or direction to slash cycle times and increase operator efficiency.



NEW LIVE ACTION HYDRAULICS. Provide faster lifting speed and greater lifting capacity without robbing power from the tracks.

MORE HP WITH NEW CAT TURBOCHARGED ENGINE. Up 50% on the 977H—up 43% on the 955H.

NEW INCREASED BUCKET CAPACITY. An 11% increase on the 977H—a 16.6% increase on the 955H.

NEW HEAVY-DUTY UNDERCARRIAGE. Larger, stronger track components also increase stability . . . lifetime lubricated rollers with exclusive floating ring seals need no servicing.

MORE HIGH-PRODUCTION FEATURES. New gasoline starting engine . . . new dry-type air cleaner that cuts maintenance time as much as 75%. Plus such retained features as 40° bucket tilt back . . . automatic bucket positioners and kick out . . . hydraulic track adjusters.

QUICK-CHANGE ATTACHMENTS. Multiply the usefulness of these machines. Attachments available include the Side Dump Bucket, Rock Bucket, Quarry Bucket, Bulldozer, Ripper and Log and Lumber Forks.

Now!

A lifetime lubricating oil for railroad diesels

Results from 3 years of over-the-rails freight service show that Shell Talona RS Oil 40 is a lifetime lubricating oil for railroad diesels!

New facts about Shell Talona RS Oil 40 performance are still coming in from railroad operators across the country, all pointing to a new concept of locomotive diesel crankcase lubrication.

For example, one major railroad using Talona® RS Oil 40 in heavy-duty freight service reports that its diesels have run in excess of 200,000 miles and give no indication of requiring an oil change.

Railroad operators with the most experience using Talona RS Oil 40 are convinced that diesel engine life between overhauls can be greatly extended too. Furthermore, their experience indicates that Talona RS Oil 40 will last for the full overhaul life of the engine.

• • •

Put this revolutionary new oil in your own diesels and demonstrate these cost-saving results yourself. Contact your nearest Shell Railroad Service Engineer.

SHELL TALONA RS OIL 40 is specially compounded for today's high-output railroad diesel engines.

Twice the anti-wear protection. Results show that Shell Talona RS Oil 40 will give *at least 4 years* of service between engine overhauls against 2 years or even less with conventional oils.

Longer filter life. Shell Talona RS Oil 40, with its excellent filterability, safely absorbs more contaminants than conventional diesel lubricating oils . . . affording still further dollar savings by extending filter-change periods. It holds contaminants in a finely divided state to prevent sludge deposit formation which could interfere with proper lubrication.

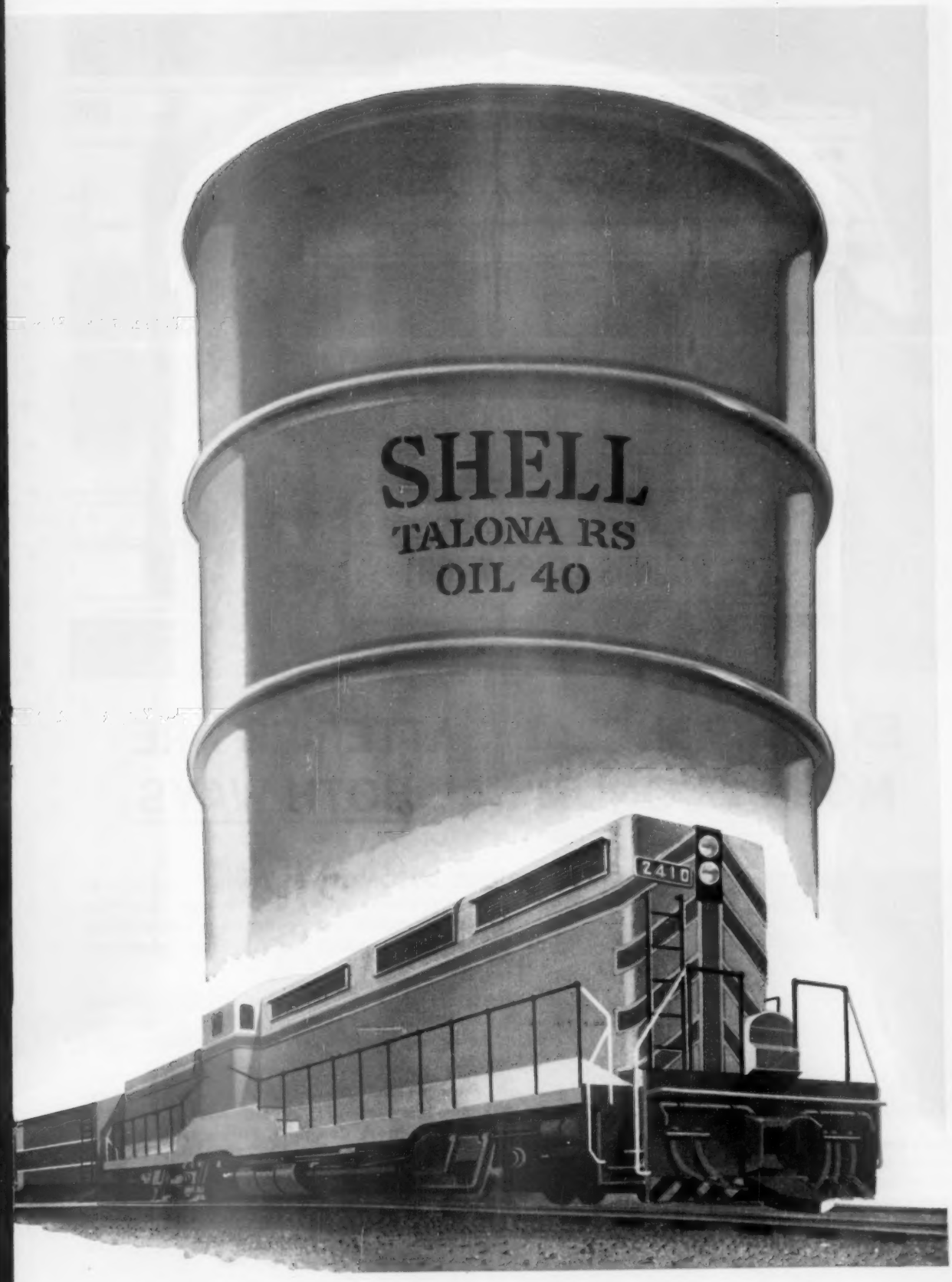
Unmatched engine cleanliness. Talona RS Oil 40 effectively fights deposit build-up . . . keeps engines remarkably clean. At the same time it cuts down oil consumption. And you know that a cleaner engine involves considerably less expense at overhaul time.

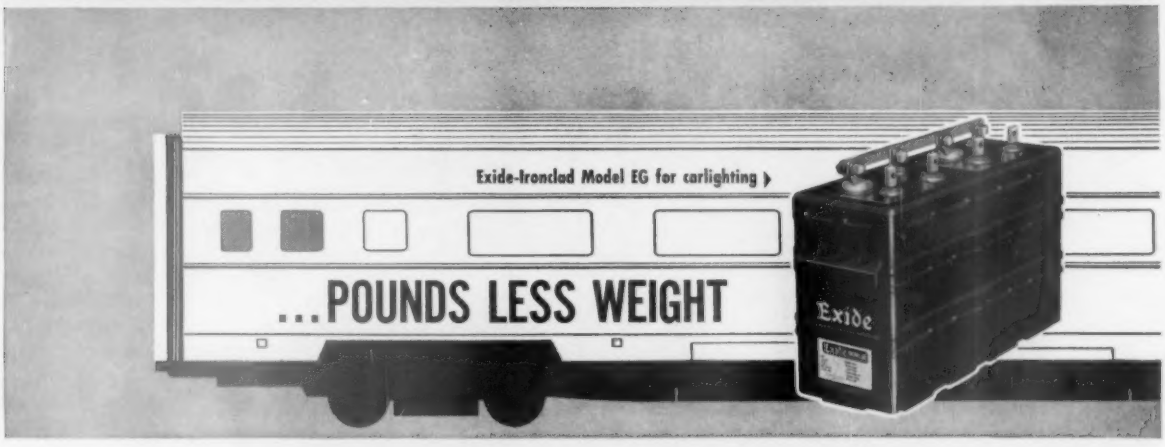
Excellent silver bearing lubrication. Shell Talona RS Oil 40 protects silver bearings. It has special extreme-pressure additives that provide effective built-in protection *for the life of your engine.*

SHELL OIL COMPANY

50 West 50th Street . . . . . New York 20, New York
624 South Michigan Avenue . . . . . Chicago 5, Illinois
100 Bush Street . . . . . San Francisco 6, California
In Canada: Shell Oil Company of Canada, Limited,
505 University Avenue . . . . . Toronto 2, Ontario

SHELL


SHELL
TALONA RS
OIL 40
2410



EXIDE-IRONCLAD BATTERIES ARE MORE ECONOMICAL BOTH WAYS

Here's the secret. The new, improved Exide-Ironclad tubular positive plate. Unlocks even more power per ounce of active material than in the past. Gives you more capacity per cubic inch of space and longer battery life for greater economy.

IN DIESEL LOCOMOTIVES. The new positive plate construction retains active material better, you get years longer battery life. Design unlocks more power for greater economy. Batteries now need less space; one size fits all locomotives.

IN CARLIGHTING AND AIR CONDITIONING. Exide-Ironclad Batteries save you up to 616 lb. of deadweight per car. You use your fuel to pull passengers, not battery weight.

Find out how much Exide-Ironclad Batteries can save you. Write for more information. Exide Industrial Division, The Electric Storage Battery Company, Philadelphia 20, Pa.

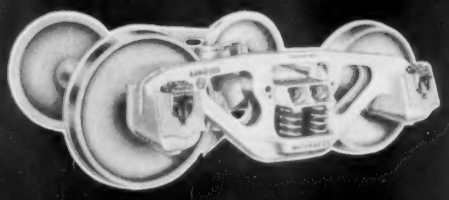
Exide®

RIGHT

Right from the start

ECONOMICAL AND DEPENDABLE

for sure...



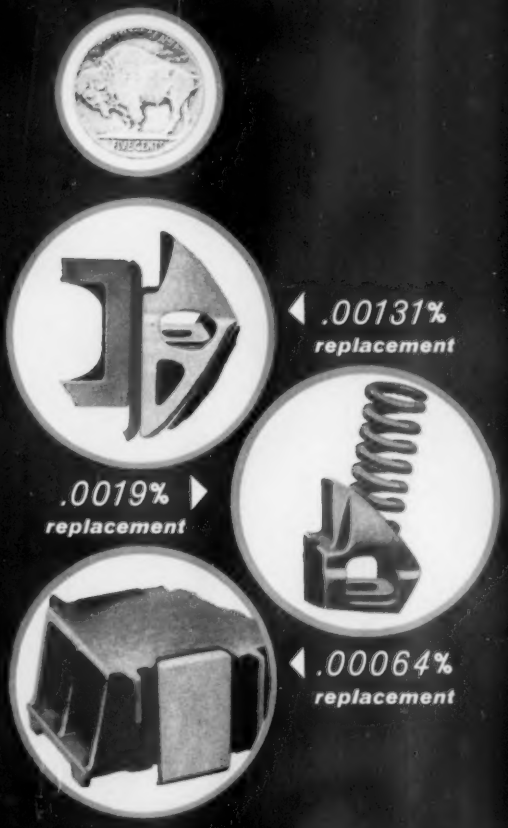
NATIONAL

COST LESS THAN 5¢ PER TRUCK FOR ALL PARTS REPLACEMENT IN 12 YEARS' SERVICE

Basic design of the National C-1 Truck has remained unchanged since its introduction over 12 years ago—because the C-1 design was right to begin with and needed no change. Strong claims? For sure. But here's proof of the soundness of C-1 Truck design.

Service parts records show an average replacement rate of only .00129% for wedges, wedge springs and wear plates.

In spite of hundreds of thousands of miles of service, replacement parts costs averaged under 10¢ per carset—less than 5¢ per National C-1 Truck in service.



A-1907A

C-1 TRUCKS

Transportation Products Division

International Division
Cleveland 6, Ohio

CANADIAN SUBSIDIARY
National Malleable and Steel Castings Company of Canada, Ltd., Toronto 2B, Ontario

NATIONAL
MALLEABLE AND STEEL
CASTINGS
COMPANY

Cleveland 6, Ohio

COUPLERS • YOKES • DRAFT GEARS • FREIGHT TRUCKS • JOURNAL BOXES
NATIONAL SPEEDLOADER CONTAINER HANDLING SYSTEM

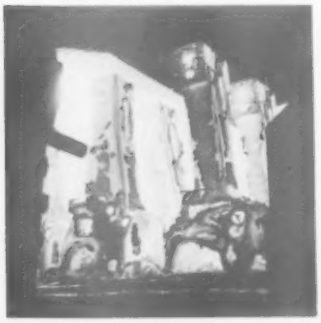
NATIONAL

PHOTO NEWS

★ ★ ★ ★ ★ ★ ★ ★ ★

Coupler Manufacturing is an art!

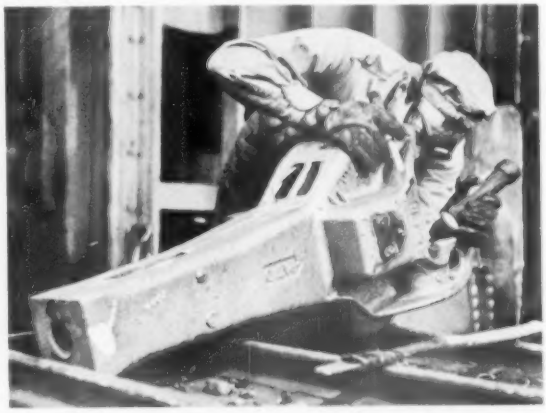
Formed from sand and hard baked, cores become the heart of the mold. Complex and made to close tolerance, they govern the internal shape of the jumbo cast coupler.



Heat treat time and temperature are automatically controlled in the furnaces by recording pyrometers for all couplers. Grain refinement and stress relief are accomplished in the heat treat process.

Statistical sampling under this million-volt X-ray machine is one of the final inspection checks. Defects to a six inch depth can easily be detected within an instant with this high voltage machine.

Inspections are regular throughout the coupler manufacturing process. Here, minor defects are marked for removal by chipping, grinding or by flame washing.



Outbound. Over 13,000,000 automatic knuckle-type couplers have been supplied by National to the American railroads since 1894. Such confidence in National Couplers has been earned through high manufacturing standards, research and top-flight service.

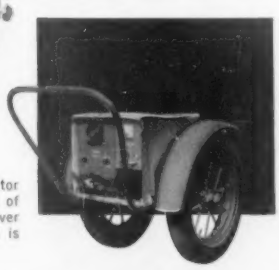
Transportation Products Division

NATIONAL
MALLEABLE AND STEEL
CASTINGS
COMPANY

Cleveland 6, Ohio

National Railroad Specialties . . . For Sure

The new Sperry Journal Test Car is a complete inspection unit. Driving from journal box to journal box, an operator can test over six hundred axles a day.



Sperry's new mobile flaw detector not only tests axles in or out of the shop but can be used wherever accurate ultrasonic inspection is needed.

The diagram illustrates the path of angled sound waves from one of the probe's six crystals . . . shows how it probes all the most critical axle areas.

Trouble Shooter ...With an Angle

Only Sperry's exclusive angle beam technique ultrasonically inspects the most critical areas of axles generally left unchecked by other test methods. And Sperry's angle beam search units make it possible to thoroughly inspect all diameter axles with the same probe.

Operation is simple. A green light signals when contact is made. A red light and an alarm buzzer signal when a progressive fracture is located. Yet the harmless structural variations inherent in many axles are not misinterpreted and thus costly dismantling for verification is avoided.

Sperry
ULTRASONIC TESTING

INDUSTRIAL X-RAY

SYNCHROFLUX
MAGNETIC PARTICLE

Sperry Products Company

DIVISION OF HOWE SOUND COMPANY

Shelter Rock Road, Danbury, Connecticut

Norfolk and

goes on 1,000 hopper

ON TIMKEN® HEAVY

The Norfolk and Western will build in its Roanoke shops 1,000 85-ton coal hopper cars—all on "Roller Freight". It's another step in the Norfolk and Western's program of improving coal transportation service. Of these 1,000 roller bearing cars, 750 will be equipped with Timken® Heavy Duty, High Mileage "AP" bearings.

"Roller Freight" is growing faster than ever. At the end of 1959, there were 53,270 cars on Timken tapered roller bearings in service or on order. Since January, 13,000 more car-sets of Timken Heavy Duty "AP" bearings have been ordered. More and more railroads and other freight car owners are switching to Timken bearings. 93 now—up from 79 in 1958, 52 in 1957.

With cars on Timken Heavy Duty, High Mileage "AP" roller bearings the railroads are solving the hot box problem—No. 1 cause of freight train delays. Timken bearings are averaging 214,000,000 car-miles per car set off in actual service. By rolling the load instead of sliding it, Timken Heavy Duty "AP" bearings assure longer, trouble-free mileage.

When all freight is "Roller Freight" the railroads will save an estimated $288,000,000 a year—$144 per car—in operating and maintenance costs. Ask your Timken bearing representative for the full story on how "Roller Freight" can increase profits.

The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

See you at the 1960 Exposition, Railway Electrical and Mechanical Supply Association, San Francisco, Jack Tar Hotel, June 13-16, Booths 225-227.

Western
"Roller Freight" new 85-ton cars . . . 750 TO GO
DUTY "AP" BEARINGS

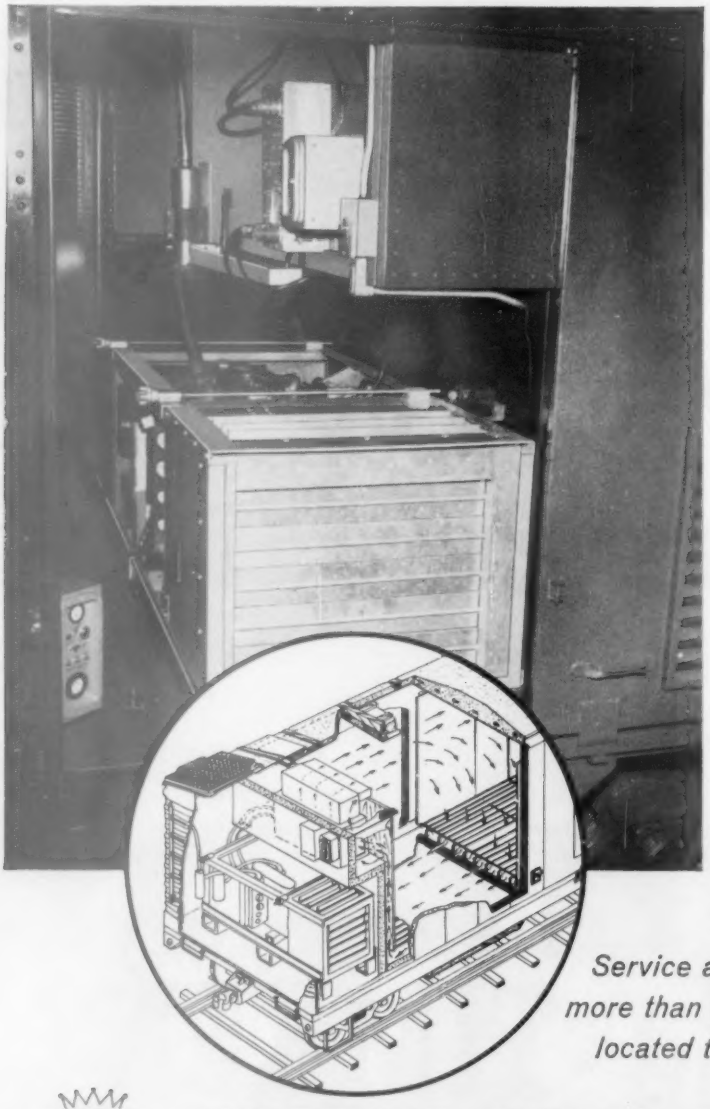
heavy duty
TIMKEN®
tapered roller bearings

Here's Temperature Control You Can Depend On

with the Great New

THERMO KING RYD-77

featuring **MERCEDES-BENZ**



DIESEL POWER

THERMO KING—World Leader In Transport Temperature Control utilizes the famed Mercedes Diesel Engine in fulfilling a long-felt need of the railroad industry.

You asked for a rugged, super-capacity, highly dependable, light-weight heating-cooling unit designed specifically for railway reefers . . .

and HERE IT IS!

- Cools or heats at snap of switch
- Will hold any given temperature from -10° to 100°
- Famous Mercedes 0M336 diesel engine
- Dependability guaranteed by Thermo King comprehensive warranty
- Low operating cost.
- Write us for more details.

Service and parts available at any of more than 170 authorized dealer stations located throughout the United States

THERMO KING CORPORATION

314 West 90th Street • Minneapolis 20, Minnesota

"World Leader in Transport Temperature Control"

REA President Is Optimistic

► **The Story at a Glance: Railway Express Agency faces only three alternatives: prosperity, liquidation, or nationalization. REA President W. B. Johnson thinks his company will prosper, he said last week at a meeting of New York's Transportation Research Forum.**

In an interview with Railway Age last January (RA, Jan. 25, p. 16), Railway Express President William B. Johnson spelled out how his company was planning its fight to stay alive under the new contract with its railroad owners that went into effect last October. Last week at a New York Transportation Research Forum meeting, he filled in some of the details of what's been happening since he talked with Railway Age.

Contrary to rumors at the time he took office 15 months ago, Mr. Johnson said, "I had not come to bury the express company as economically as possible." Nevertheless, he said, the position of the agency was anything but secure. Its largest member (New York Central) was losing $11,000,000 annually on express and had announced plans to withdraw from the agency. There was every prospect, Mr. Johnson reminded his audience, that the express company would be forced to liquidate before the end of the year.

That this did not happen, he said, was due largely to three important freedoms granted to the express agency by its railroad members last summer, two of which took effect Oct. 1. These were freedom of routing and freedom of pricing—important concessions, he said, that in effect gave the express agency the right to manage itself as a business.

The third freedom granted by last summer's agreement with the railroads will go into effect a little over a year from now, Mr. Johnson said. Terming this the "most important of all," he pointed out that Railway Express has been strictly a non-profit operation in the 30 years of its present corporate existence and the 90 years of express operation pre-dating that. Starting next July, Mr. Johnson said, the railroads will sell the express company transportation, just as they will any other customer. In the past, the railroads have provided the express company with transportation and then have divided up whatever revenues the company reported. Under the new system, Railway Express, for the first time, will be on a profit-loss basis.

Mr. Johnson noted that Railway Express has little more than a year left of the 20 months "given us" between October 1959 and July 1961 "to get ready to stand on our own feet." But he said REA has made good use of its time.

Even before the new contract was signed, he said, REA began a comprehensive drive for efficiency that cut expenses by $24 million annually in the first four months it was in effect and reduced the $38 million annual losses of member roads to a more manageable $18,000,000.

"We're still operating on a maximum economy basis," Mr. Johnson said. Stations are being closed or consolidated, he noted, adding that REA has 11,000 stations, far more than are needed to continue service on the present level.

New Equipment

But economy is not simply a matter of cutting costs, Mr. Johnson commented. He said that in the interests of economy, REA has committed about $4 million to terminal improvements since Oct. 1. The agency is also buying 1,200 new trucks and 100 new tractors, to meet the needs of expanded truck operations where trucks are cheaper than rail.

Economy also means finding new and better means of doing things through research, Mr. Johnson said. For example, he noted that REA has experimented with almost every kind of worthwhile container that has been suggested.

Another big area in which Railway Express has changed, Mr. Johnson said, is in its competitive possibilities. Formerly, he said, the company had to go through a variety of lengthy processes to get approval for changes made necessary by the competitive situation. This resulted in profitable traffic winding up with more flexible competitors while REA was left to haul "giraffes and rats."

"We've been out of touch with the shipping public and the competition," Mr. Johnson said. "Where we can do it at a profit, we're going to reduce rates."

"Unless [the Agency] can make a profit," Mr. Johnson said, "we'll die." He added that the secret of making a profit is to be of value to the public. "If we can do enough good for all the people in the country," he said, "we'll be able to survive. We face a deadline when [if we don't succeed] by our own efforts, we'll have to liquidate or be nationalized." But, he said, "with ingenuity, dedication and research," it's his belief that Railway Express will survive as private enterprise.

The Agency, he concluded, is in a position where the present has been "impossible" but the "potential is unlimited."

CONTAINERIZATION wears many faces. Here, a Railway Express cargo trailer is hitched to the back of a Trailways bus (RA, June 6, p. 44). The bus company provides only the line-haul movement (in states where such a rig is legal). REA hitches the trailer behind an express van for in-city movements to and from customers' docks. "If anybody can take advantage of containers," says REA President Johnson, "it's the express company."

"There must be an easier way

There is! With Centralized Traffic Control, they could operate their model railroad in a confident, competitive, easy way . . . from one central location.

And you, too, can operate your railroad in a modern, competitive way with UNION CTC, because it gives the dispatcher full control over every train movement. He knows the location of every single train . . . can start it, stop it, switch it from one track to another to best meet operating conditions, and speed traffic flow.

CTC also frees manpower—allows the railroad to move men to more important positions. CTC makes more money for you. You get more efficient use from existing tracks and equipment. Trains move faster—customers grow friendlier. Roads with CTC have reported a 30 to 40% annual return on their investment in CTC.

Invest in the future. The completely automatic train

to run a railroad"

is now possible and practical *and the expansion of CTC lays the ground work for automatic control.* Union Traffic Control Centers fit any control system and can be applied to all types of interlockings. You won't have to replace Union CTC to accommodate future developments. With Union CTC, you've already taken a step into the future of railroading. You can take that important step *now.*

We'll be glad to send you detailed information about Union CTC. Write to Union Switch & Signal, Swissvale, Pa.

"Pioneers in Push-Button Science"

UNION SWITCH & SIGNAL
DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY —
SWISSVALE, PENNSYLVANIA
NEW YORK ... PITTSBURGH ... CHICAGO ... SAN FRANCISCO

Winning Line-up

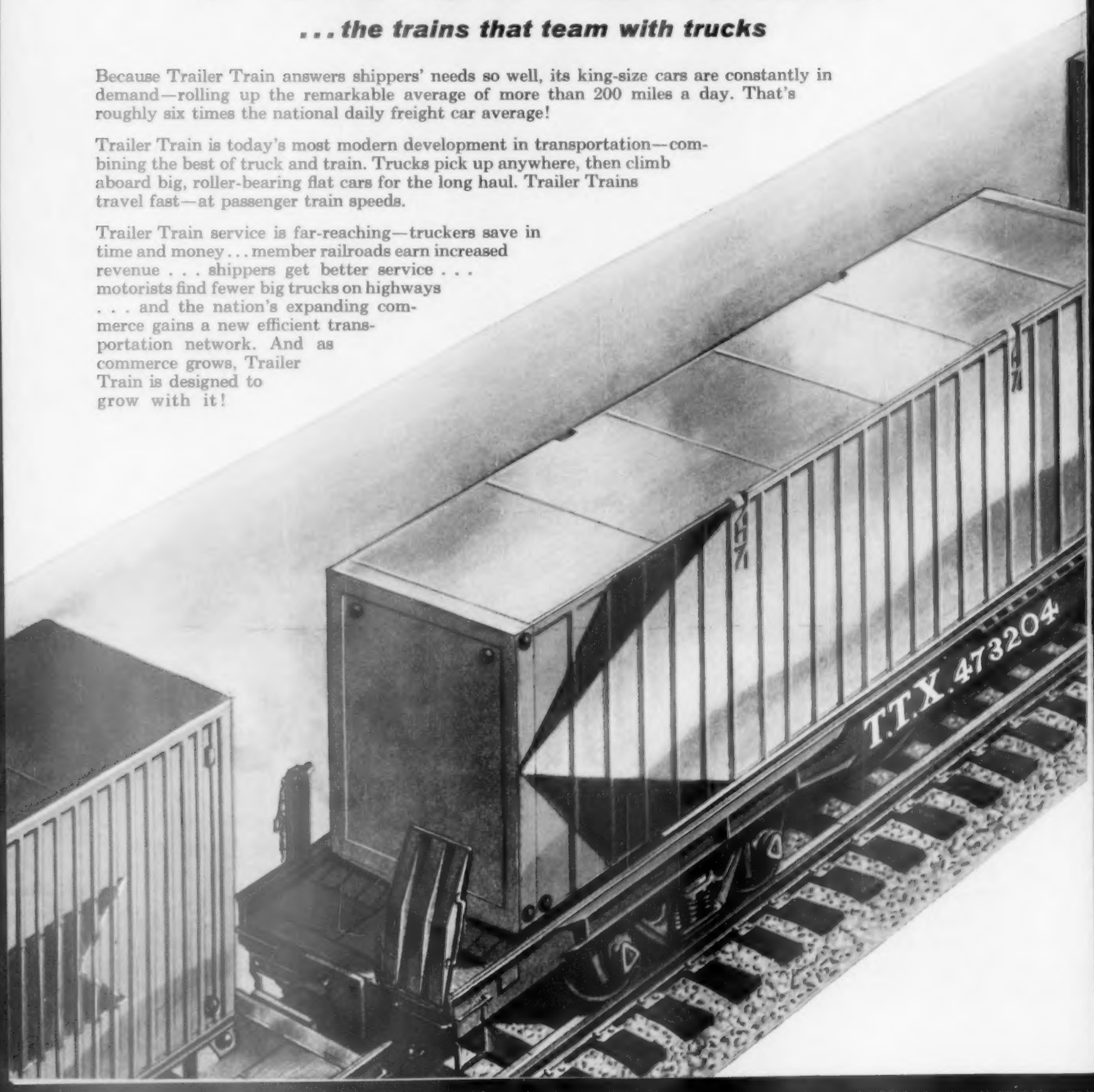
TRAILER TRAIN PIGGYBACK

...the trains that team with trucks

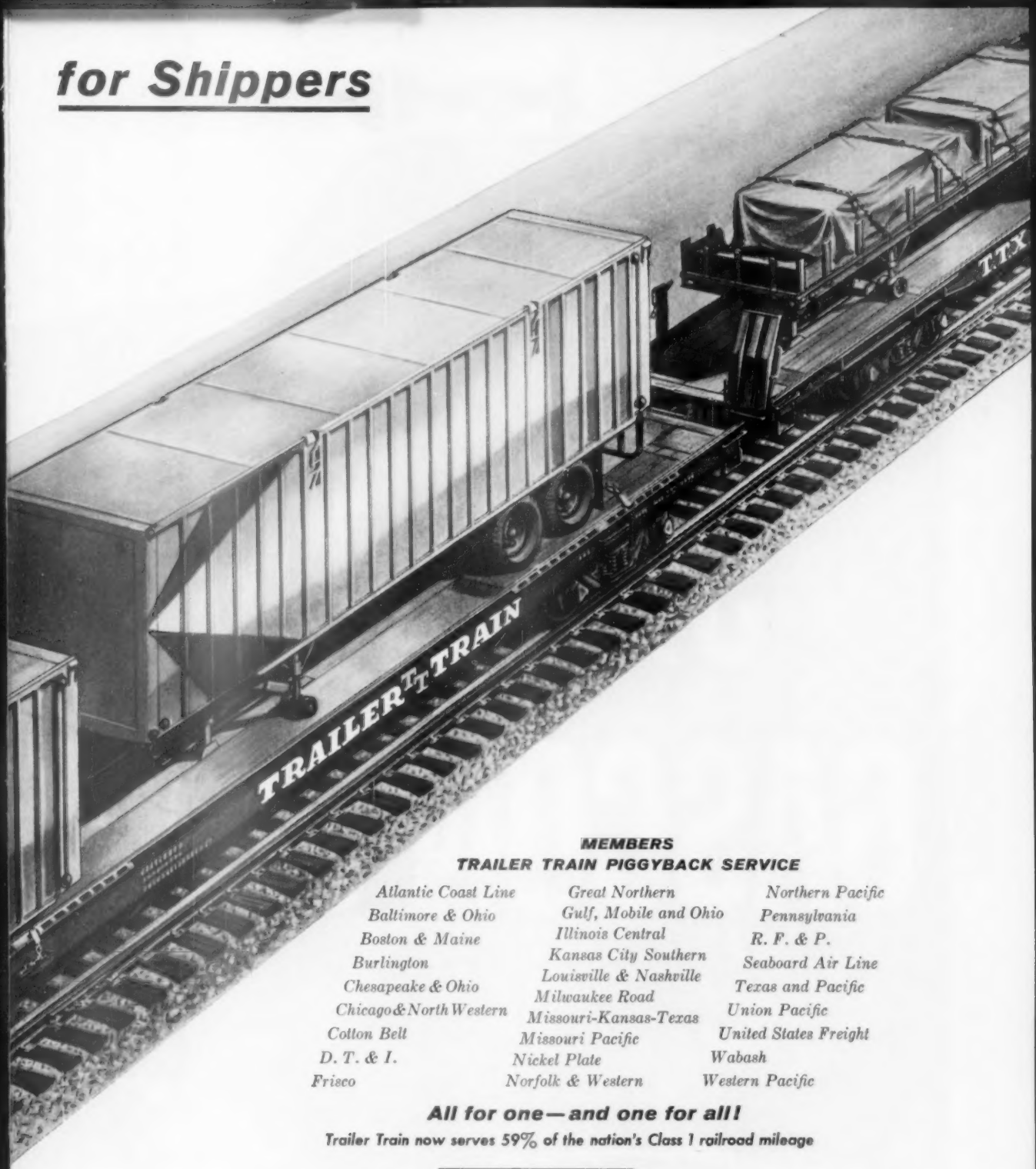
Because Trailer Train answers shippers' needs so well, its king-size cars are constantly in demand—rolling up the remarkable average of more than 200 miles a day. That's roughly six times the national daily freight car average!

Trailer Train is today's most modern development in transportation—combining the best of truck and train. Trucks pick up anywhere, then climb aboard big, roller-bearing flat cars for the long haul. Trailer Trains travel fast—at passenger train speeds.

Trailer Train service is far-reaching—truckers save in time and money... member railroads earn increased revenue . . . shippers get better service . . . motorists find fewer big trucks on highways . . . and the nation's expanding commerce gains a new efficient transportation network. And as commerce grows, Trailer Train is designed to grow with it!



for Shippers



MEMBERS
TRAILER TRAIN PIGGYBACK SERVICE

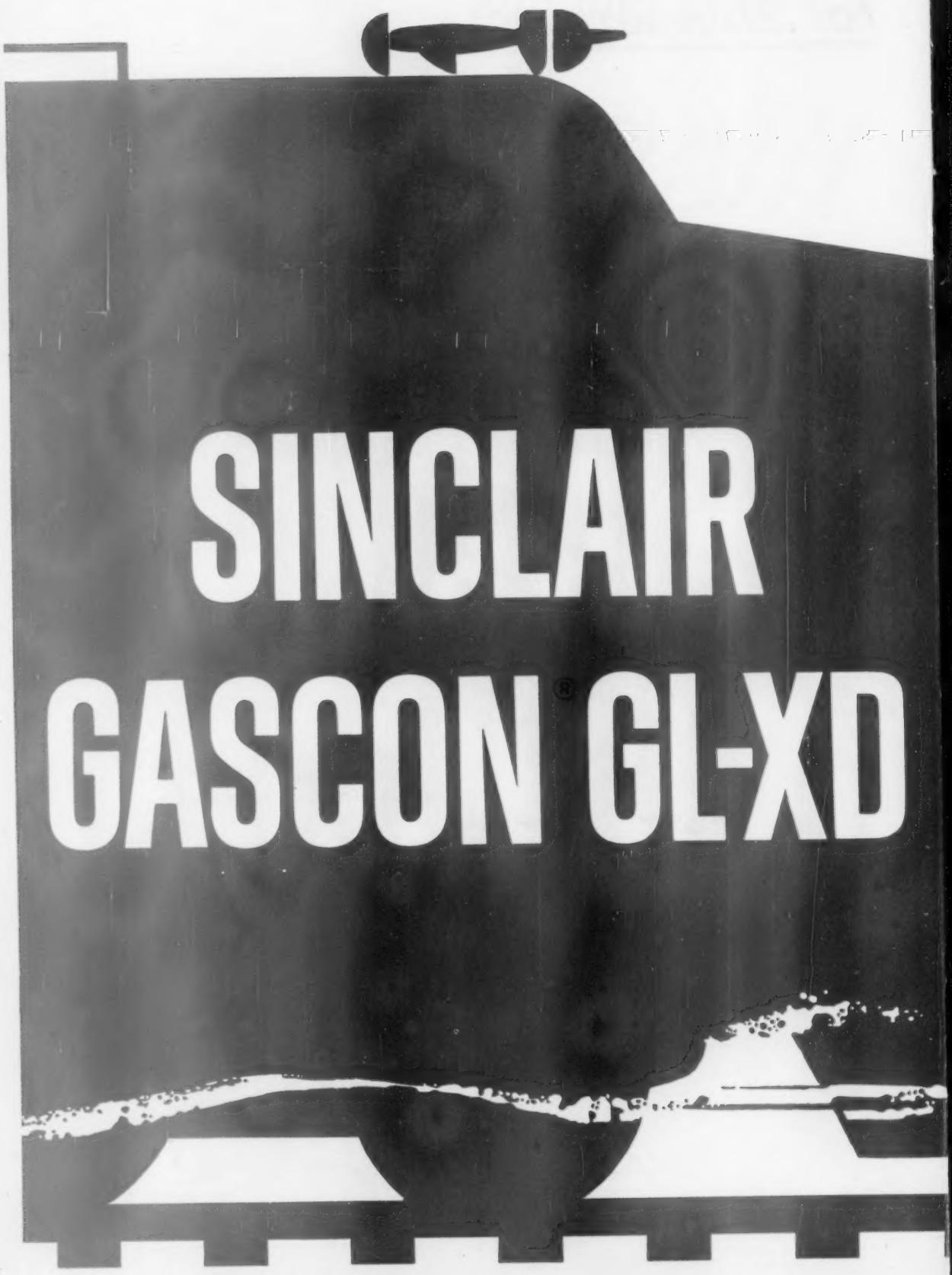
Atlantic Coast Line
Baltimore & Ohio
Boston & Maine
Burlington
Chesapeake & Ohio
Chicago & North Western
Cotton Belt
D. T. & I.
Frisco
Great Northern
Gulf, Mobile and Ohio
Illinois Central
Kansas City Southern
Louisville & Nashville
Milwaukee Road
Missouri-Kansas-Texas
Missouri Pacific
Nickel Plate
Norfolk & Western
Northern Pacific
Pennsylvania
R. F. & P.
Seaboard Air Line
Texas and Pacific
Union Pacific
United States Freight
Wabash
Western Pacific

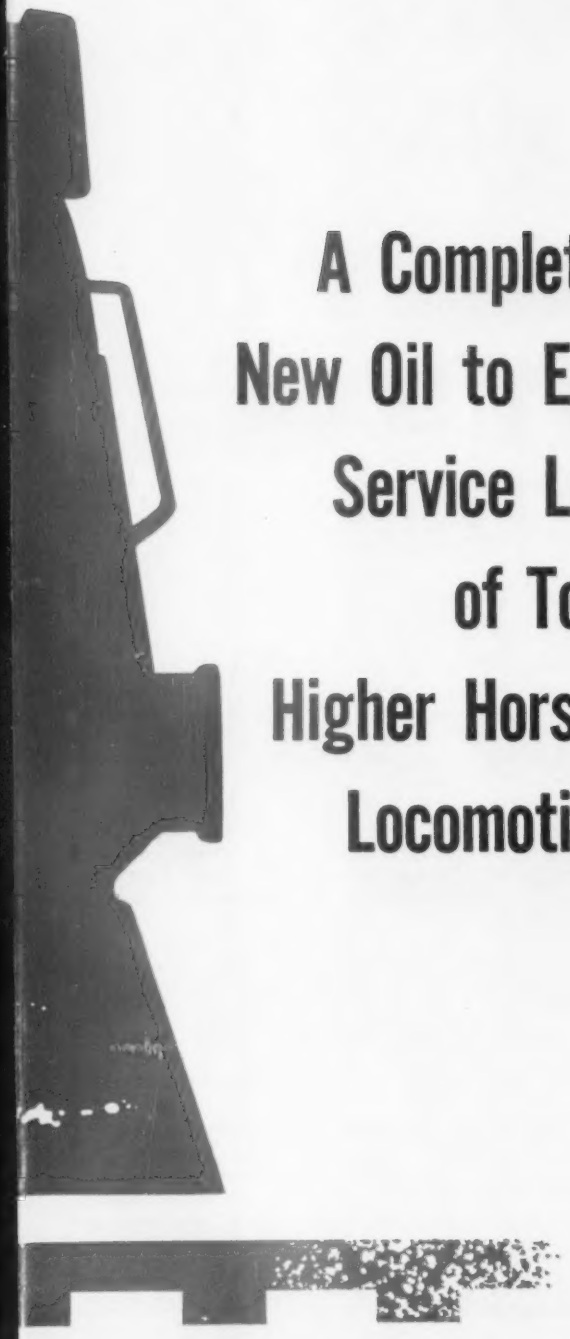
All for one—and one for all!

Trailer Train now serves 59% of the nation's Class 1 railroad mileage

TRAILER TRAIN

6 Penn Center Plaza • Philadelphia 3, Pa.


SINCLAIR
GASCON® GL-XD



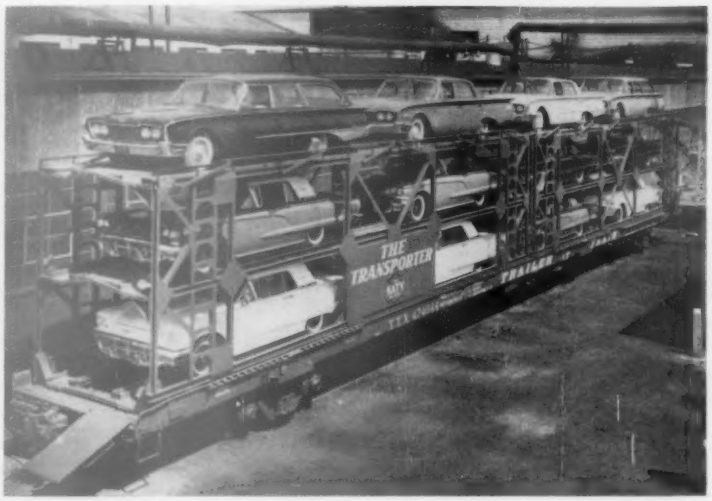
A Completely New Oil to Extend Service Life of Today's Higher Horsepower Locomotives

Gascon GL-XD, the newest in Sinclair's famed line of Diesel lubricating oils, has been approved by prominent locomotive engine manufacturers. Millions of miles of service on many of America's largest railroads prove you can get these advantages:

1. Greatly reduced engine wear
2. Improved oxidation resistance
3. Proven noncorrosive to silver and other bearing materials
4. Reduced engine deposits

For additional information, write or telephone Sinclair Refining Company, Railway Sales, 600 Fifth Avenue, New York 20, N. Y.
New York · Chicago · St. Louis · Houston

Sinclair
Railroad
Lubricants



Katy Uses Tri-Level Frame on TTX Car

Whitehead & Kales' triple-deck auto transport frame, first applied to Clejan-type piggyback flat cars, has been adapted for use on TTX-type equipment. Katy has acquired a prototype unit and has placed it in service between St. Louis and Houston. Like the first model, built for Southern Pacific, this frame will carry 12 standard or 15 compact cars. Detachable units (frame is built in two sections) weigh approximately 30,000 pounds, are equipped with shock absorbing devices which permit 10 in. travel in either direction. Frame can be removed and car converted for regular piggyback use by reapplying ACF hitches, which are taken off car when it's readied for auto transport service. Katy becomes the fourth road to go into new car movement with tri-level equipment. The others: SP, Frisco, Santa Fe (RA, May 16, p. 48).

ICC to Discuss Rate Policy

The Interstate Commerce Commission was scheduled to appear before the Senate's merchant marine and fisheries subcommittee this week for a discussion of its regulatory policy on competitive rates.

The committee has heard water carrier and trucker complaints against railroad rate practices and Commission decisions since enactment of the 1958 Transportation Act's rate-freedom provisions. It also heard the railroad industry's answer, and the National Industrial Traffic League's support of the railroad position.

The railroad presentation was made by a group of witnesses headed by Jervis Langdon, Jr., vice president and general counsel of the Baltimore & Ohio. (RA, June 6, p. 9). There were four other railroad witnesses including representatives of the regional traffic associations.

Thomas H. Maguire, chairman and counsel of the executive committee, Western Traffic Association, told the subcommittee that transportation companies would perform far better public service if they devoted more time to pricing and service improvements instead of "trying to place legislative and regulatory handcuffs upon each other." He warned that the real danger facing all for-hire carriers is "do-it-yourself" transportation. And he contended that private carriage is on the upswing mainly because rates of for-hire carriers make it more economical and convenient for industry to make private arrangements for transportation.

What really disturbs the complaining carriers most, Mr. Maguire said, is that the railroads, after years of seeing their traffic siphoned off by competitors, have recently adopted "a dynamic and active posture" with respect to rates and service.

R. C. Gill, general commerce manager of the Traffic Executive Association—Eastern Railroads, emphasized the role of the complainants as specialized carriers. He pointed out that the railroads haul whatever is offered while water carriers and truckers handle "only what is to their liking."

As to the complaint about "selective rate cutting," Mr. Gill said all rate adjustments by all types of transportation are selective "in a certain sense"—but "selectivity of traffic is something that the water lines and motor trucks know all about."

E. C. Hicks, Jr., general freight traffic manager of the Atlantic Coast Line, spoke for southern railroads. Instead of suffering from railroad competition, regulated water carriers along the Atlantic seaboard and Gulf of Mexico have increased their tonnage and capacity in recent years, he said.

Pointing out that these carriers increased their tons hauled from 12,166,000 in 1952 to 13,350,000 in 1959, Mr. Hicks asserted that "the general vigor of the water carrier industry and its optimistic outlook" are evidenced by numerous recent applications to the ICC for new or expanded operating rights.

Ernest D. Grinnell, Jr., general attorney of the Frisco, appeared to defend that road's piggyback rates on new automobiles. Those rates had been attacked by a trucker witness. Mr. Grinnell called the piggyback service "a step forward in the transportation of new automobiles."

JCL Seeks ICC Approval For Part Purchase of L&NE

The Central Railroad Company of New Jersey and two wholly-owned subsidiaries, the Central Railroad Company of Pennsylvania and the Lehigh and New England Railway Company, last week asked the ICC to approve purchase of 40 miles of railroad from the Lehigh and New England Railroad Company (RA, April 18, p. 52).

The five L&NE segments JCL wants to buy lie in the cement, industrial and hard coal regions of eastern Pennsylvania. Proposed price has been agreed upon at $4,050,000, plus the book value of materials and supplies up to $700,000.

Simultaneously, the 177-mile L&NE Railroad, which offers freight service between Hauto, Pa., and Campbell Hall, N. Y., is requesting ICC permission to abandon operations. About 95% of all freight traffic now originating on the L&NE Railroad comes from shippers on the 40 miles of line to be purchased by the Jersey Central's newly-created subsidiary, L&NE Railway. Virtually all shippers will be offered equal or improved service, the JCL says.

Details of the transaction subject to ICC approval have been approved by the boards of directors of all the affected corporations. Earl T. Moore, president of the Central Railroad of New Jersey and the Central Railroad of Pennsylvania, has been elected president of the newly-formed L&NE Railway.

FLOPAK *has Durable* CONSTRUCTION

FLOPAK FEATURES

1. Approved for interchange—also approved for renovation. Priced right down to base—$23.95 per carset—for 9" 10" and 11" sizes.
2. Fully meets the very latest AAR lubricator specification.
3. Flopak has unusual wicking ability and is very durable.

20 lbs.

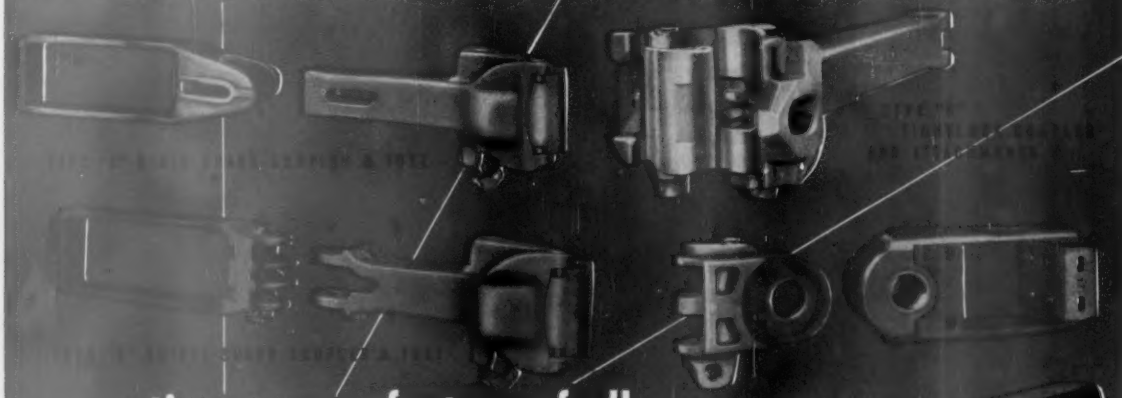
"Life-time" lock-stitched loops have 20 lb. breaking strength.

These loops are the strongest in the industry and cannot be pulled loose from the heavy cover cloth.

MILLER LUBRICATOR CO., WINONA, MINN. MILLER LUBRICATOR CO. OF CANADA LTD., NAPANEE, ONT., CAN.

Since 1902...

'DEPENDABILITY IN SERVICE'

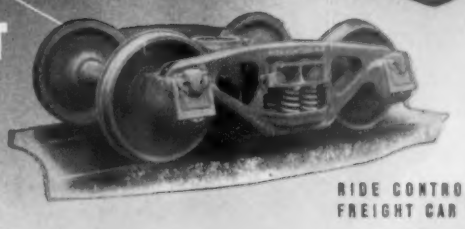


. . a time-proven feature of all

Buckeye

TYPE "F" INTERLOCK COUPLER AND ATTACHMENTS

STEEL CASTINGS for RAILWAY EQUIPMENT



RIDE CONTROL (A-3) FREIGHT CAR TRUCK

BUCKEYE C-8 (CUSHION-RIDE) FREIGHT CAR TRUCK

BUCKEYE EIGHT-WHEEL TRUCK

BUCKEYE SIX-WHEEL TRUCK

FOR COMPLETE INFORMATION . . . CALL or WRITE

Refer Adv. No. 11876

The Buckeye Steel Castings Co.

COLUMBUS, O.
NEW YORK, N.Y.
CHICAGO, ILL.
ST. PAUL, MINN.
SAN FRANCISCO, CALIF.

Suburban Transit: More Relief

► **The Story at a Glance: Suburban transit problems—and some relief measures—continued to make news last week.**

- **New Jersey's Assembly sent to the Governor a $6-million bill to buy suburban rail service from nine railroads.**
- **New York State set in motion machinery to implement tax cuts for state railroads under Governor Rockefeller's commuter aid plan (RA, March 23, 1959, p. 9). Extent of the tax relief: $4-million a year now, rising to $12-million in 1962.**
- **City finance officers heard PRR Chairman James M. Symes tell how proper use of rail commuter lines could help avoid debt problems of mushrooming highways.**
- **And a transportation conference summed up: "Cities are for people, not automobile storage."**

Nine New Jersey railroads will be asked to sign contracts agreeing to continue and improve commuter service for a one-year period. Those are the terms of a $6-million commuter subsidy bill approved last week by the State Assembly. Previously passed by the Senate, the bill will become law as soon as the expected signature of Governor Robert Meyner is added (RA, May 30, p. 56).

Bulk of the money is earmarked for roads operating the greatest number of passenger miles: PRR ($1,698,600) gets the largest sum; other roads, in decreasing order of payment, are the DL&W, JCL, Erie, Pennsylvania-Reading Seashore Lines, NJ&NY, NYS&W, LV and Reading. The Susquehanna ($58,500), LV ($30,000) and Reading ($9,600) represent together only about one-sixtieth of the total payments proposed.

Railroads that sign the contracts will be asked to continue service without major changes while a long-range solution is worked out, although the contracts will be renewed annually. Highway Commissioner D.R.G. Palmer, who will administer the contracts, has indicated that it will be from three to five years before long-range proposals are ready.

Without seeing the contracts, railroads affected could not be specific about their reactions. A spokesman for the PRR emphasized that payments were a purchase of services, and that the railroad could not make specific comments until it learned exactly what the state wanted for its money. But he added: "The action of the legislature does appear to be a very decided move in the right direction toward maintaining rail commuter service in the New Jersey-New York metropolitan area."

The Jersey Central called the move "a constructive first step" but noted that the dollar figure mentioned for JCL amounted to only about 30% of the avoidable loss on the service.

President R.E. Sease of the Susquehanna said: "We're glad to see something like that come along, but the present terms are not satisfactory to the Susquehanna. If the $58,000 is all they can give us, we couldn't afford to sign the contract. We couldn't afford to keep on running the trains."

Tax Cut in New York

Under Governor Nelson Rockefeller's commuter aid plan, passed by the 1959 legislature, state railroads were scheduled to receive this year tax reductions on transportation properties in the state (which would be counterbalanced if a road had a high earning level, by increased taxes on earnings). A reduction of $4,000,000 in railroad assessments has now been ordered under this law by the State Board of Equalization and Assessment to take effect in the fiscal year beginning July 1. Six cities including New York are affected, but the state will reimburse the cities for about half of their tax loss under Governor Rockefeller's plan. Similar cuts are planned for next year and the year after, with the eventual tax savings for the railroads expected to amount to $12,000,000 a year.

"THE CONCRETE OCTOPUS" (RA, May 18, 1959), is a continuing headache for urban planners. Here's one of its variety of forms—the parking problem, with a fanciful, if somewhat two-dimensional, solution built in. More realistic solutions are discussed elsewhere on this page.

Meanwhile last week, PRR Chairman James M. Symes told a New York City convention of U.S. and Canadian city financial officers that proper treatment and utilization of railroad commuter lines could help alleviate state and local debt problems caused by the "mushrooming building of highways that feed more and more suburban automobiles onto downtown streets during rush hours."

Mr. Symes was one of four speakers at a panel discussion of urban problems featured in the 54th annual conference of the Municipal Finance Officers Association. Reminding delegates that state and municipal debt has increased 400% in the last decade, Mr. Symes asserted that a big factor in this rise has been the cost of new highways and the loss of tax revenues from land the highways are built on.

This problem will increase unless corrected, Mr. Symes warned. "Already, well over two-thirds of our nation's population lives in the more than 17,000 municipalities, and by 1980, this figure will be almost 85%."

Pointing out that PRR loses close to $12 million a year on commuter service into New York and Philadelphia and warning that no private enterprise can keep this up, Mr. Symes said additional highways that would be needed to carry Pennsy commuters in these two cities, would cost $1,273,000,000.

"It would be far cheaper," he said, "for government to pay the railroads for these services than to spend terrific sums of money for additional highways which would not solve the problem, but which would create more problems. Rail systems require a minimum of land, contrasted with other systems of equal capacity. This fact permits proper land use, essential to metropolitan areas."

'Cities Are for People'

"It's imperative that coordinated metropolitan transportation systems be planned with equal emphasis on facilities for both autos and modern high-speed rapid transit." This statement by General Electric Vice President Fred J. Borch summed up a metropolitan transit conference called by G.E. in New York.

The transportation conference was called to introduce "Everyone's Express," the first in a series of ten-minute motion pictures planned by General Electric as editorials on metropolitan transportation problems. "Cities are for people, not automobile storage," says G.E. in describing the theme of the projected motion picture series.

Piggyback Fleet: 85,000 by '70?

► **The Story at a Glance: A piggyback fleet of 65,000 to 85,000 cars was forecast for 1970 at a panel discussion —"The Suppliers Answer Your Questions"—that wound up the 34th annual convention of the AAR's Purchases and Stores Division.**

The suppliers also said that the box car is not on the way out; that modern ordering procedures and processes are helping offset the rising costs incurred by the spreading practice of having suppliers carry more of the inventory formerly carried by railroads; and that one convention combining all AAR divisions once every three to five years would enable suppliers to exhibit their products more economically and effectively.

Speaking for the suppliers were George L. Green, vice president, Pullman Standard; Goff Smith, vice president, American Steel Foundries; Robert M. Coultas, manager transportation sales, General Electric Co.; and John F. Corcoran, vice president, Union Asbestos & Rubber Co. Moderator was Holcombe Parkes, president, RPI.

Substantial growth in piggyback equipment orders during the next ten years was predicted at the P&S division's Chicago meeting. Pullman-Standard's George L. Green, replying to a question on the future of piggyback, told a large audience of purchasing and stores officers that this type of traffic will account for 2 to 2.5% of the total rail ton market this year, for 10% by 1965, and as high as 25% by 1970.

If this prediction holds true, Mr. Green said, the railroads will purchase 3,000 to 6,000 piggyback cars a year for the next five years and 6,000 to 12,000 cars a year during the following five. This could mean a piggyback fleet of 65,000 to 85,000 cars by 1970.

But, Mr. Green said in answer to another question, the box car is far from becoming a "museum piece."

There were 335,000 box cars delivered to American railroads in the years 1950-54 and 285,000 more from 1955 to 1959, Mr. Green said.

He added that piggyback transportation is not in direct competition with the box car, but rather with highway traffic. He admitted that there has been a trend toward less box cars because of covered hopper cars and that six-foot door cars for grain are on the way out. On the other hand, he pointed to the number of specialized box cars, e.g. those having wide doors, damage-free loading devices, etc.

General Electric's Robert M. Coultas told what suppliers are doing to alleviate the impact of rising costs brought on by the practice of having suppliers carry more of the inventory formerly carried by the railroads themselves.

Mr. Coultas said that several factors are helping offset these higher costs, including routines such as scheduled orders where manufacturers are informed of railroad needs in advance and the use of electronic computing systems to forecast needs.

Three members of the panel answered the question, "Do you believe an annual exhibit of railroad suppliers would be justified if all AAR divisions would hold their meetings concurrently or within a brief period of time?"

Mr. Green cautioned that "to hold an exhibit every year is very costly. I don't think the railway supply industry is ready for this. I would like to see a convention every three years at the minimum or at the most every five."

The others agreed that, in the words of Union Asbestos & Rubber's John F. Corcoran, "the first large step that could be taken would be for the Purchases and Stores group, the Mechanical group, etc., to have their meetings at the same time in the same place."

In answer to another question, Mr. Corcoran denied that selling expenses of the railway supply industry are way out of line, but admitted that, if the cyclical aspect of the industry's buying could be leveled out, "it would show in our selling costs."

American Steel Foundries' Goff Smith concurred, adding that labor costs are a big factor. "If we had a more regular pattern of manufacturing and supply," he said, "it eventually would be reflected in costs."

The panel answered a variety of other questions in which its members:

- Denied that suppliers furnished too-lavish entertainment to customers.
- Contended that suppliers, to the best of their ability, do carry in stock materials that require excessive lead time, but that sometimes design changes, lack of standardization, etc., make this impossible.
- Complained that railroads should assume more of the expense of testing new products and that interchange complicates AAR approval of them, with paperwork sometimes taking a year.
- Said that suppliers are trying to improve their sales organizations, adding, however, that some of their lines are too diverse to train one man in the handling of all items.
- Explained that the cyclical nature of railroad purchases is costly because sales and manufacturing operations must nevertheless be maintained and that the cost to the railroads themselves is in car shortages.
- Said there would be an adequate supply of cast steel wheels in 1960-61.
- Asked purchasing officers to put a value on quality of workmanship and design.
- Expressed satisfaction with the improvement in palletizing brake shoes.
- Pointed out that delivery delays on signal and air brake material are simply because "you can normally expect a long lead time on items not standardized."

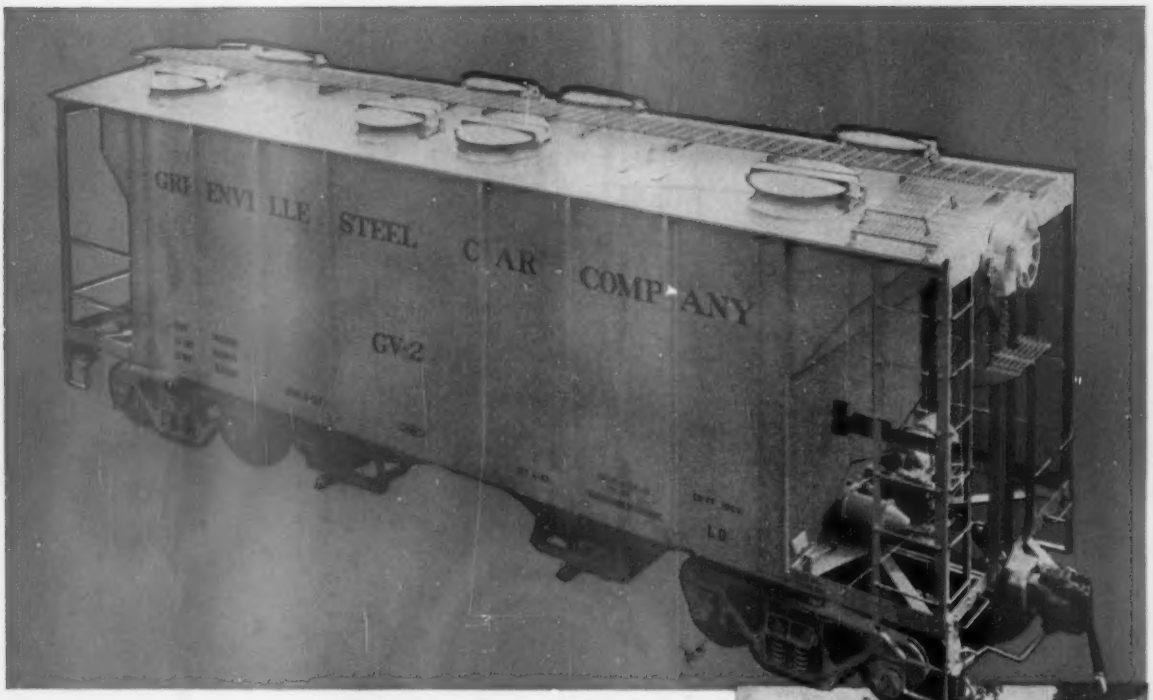
RR Safety Records Cited

How safe is rail travel?

CPR President N. R. Crump and AAR President D. P. Loomis told the 40th annual meeting of the AAR's Safety Section at Quebec City last week there's only one answer: "Very!"

To prove the point, Mr. Crump said a passenger would have to travel on a Canadian Pacific train all day, every day, at 100 mph, for 1,329 years before being involved in a fatal accident. Mr. Loomis cited figures to show that the 1959 safety record of U. S. railroads was nearly four times as good as that of buses, 13 times as good as that of domestic airlines, and 45 times as good as that of automobiles.

"Safety," Mr. Loomis also said, "is no accident," and both executives agreed that the railroad record had been achieved only by long, hard work, the benefits of which have extended also to employees and the public. As Mr. Loomis put it, the average industrial worker was nearly twice as safe in 1956 as in 1928—but the average railroad employee was more than three times as safe. In the light of those figures, he branded as "deplorable, if not tragic" recent attempts by a few "professional agitators" in rail unions to describe railroads as "unsafe" just to block work-rule changes or promote "make-work" legislation.



Pacesetter

70-TON COVERED HOPPER

low initial cost . . . low operating cost

Standardize on the Greenville Pacesetter 70-ton covered hopper. It's a time-tested, field-proved, rough, tough car that costs less and cuts operating costs when in use. High speed, deep penetrating automatic welds give you added waterproofing qualities when handling cement, potash and similar dry cargo. This is one of four Pacesetter package units in service. Others are flats, gons and hoppers. Planning car purchases? Get the facts today. No set of bids is complete without the figures on the Greenville Pacesetters.

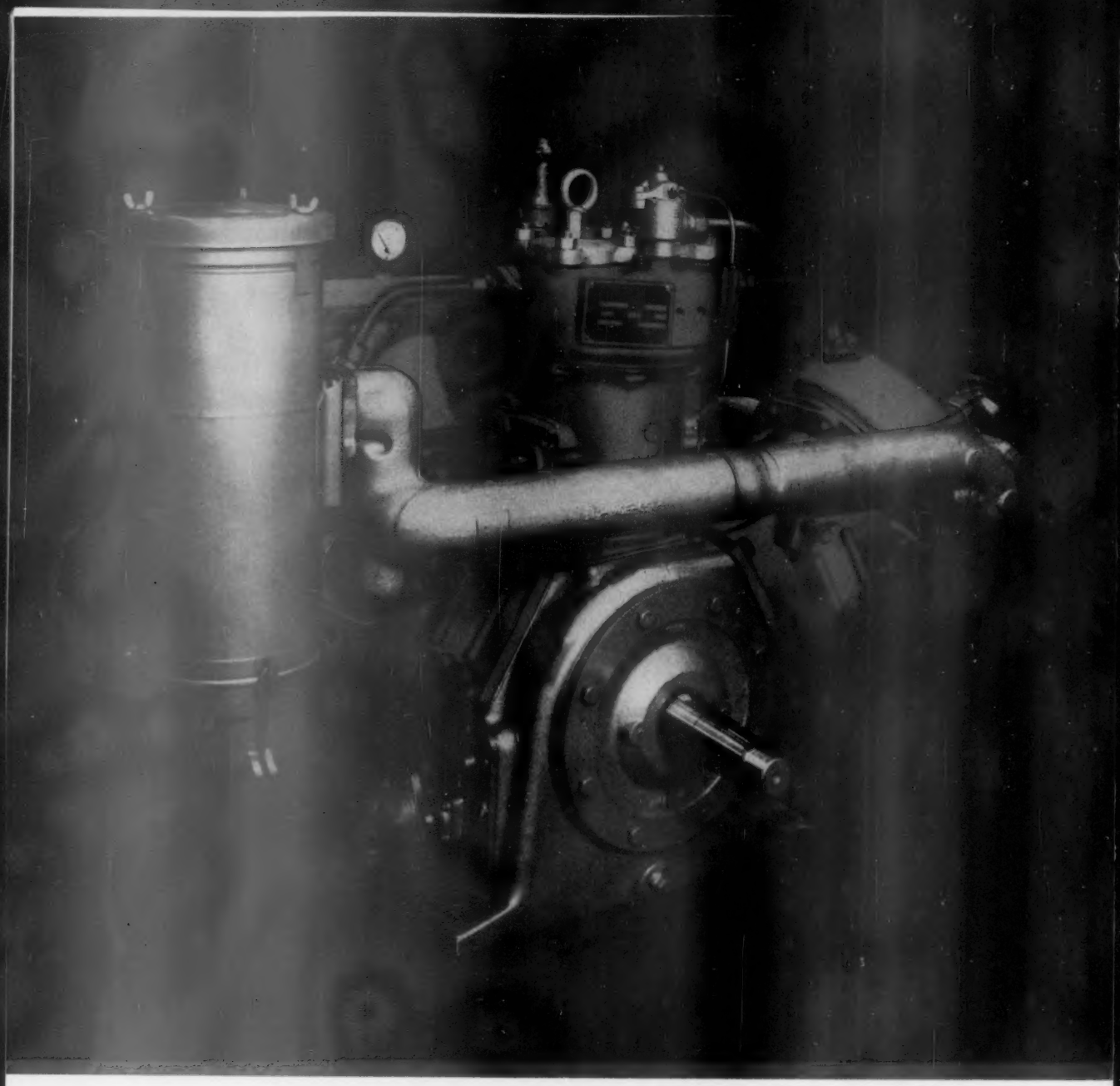
NEW CONSTRUCTION HEAVY AND LIGHT REPAIRS LEASING

GREENVILLE

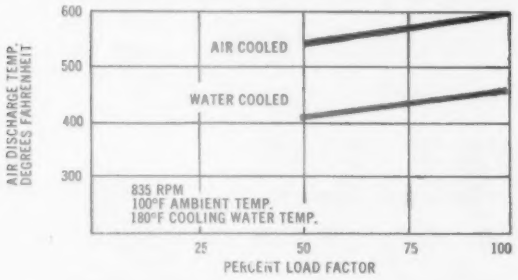
STEEL CAR COMPANY

GREENVILLE, PENNSYLVANIA

48 Years of Experience



REDUCES AIR DISCHARGE TEMPERATURE 145-150 DEGREES



This graph illustrates how the water-cooled air compressor operates cooler even when the load factor is increased steadily.

ELECTRO-MOTIVE AIR COMPRESSOR CONVERSION KITS

LOCOMOTIVE MODEL	From Air Cooled Compressor	To Water Cooled Compressor	Conversion Kit Part No.	Cooling System Piping Drawing
GP	WXE WXO	WBO* WBO	8237123 8237123	8242802 8242802
F "A" UNIT	WXE WXO	WBO* WBO	8237123 8237123	L-8470 L-8470
F "B" UNIT	WXE WXO	WBO* WBO	8237123 8237123	L-8472 L-8472
E	ADX ADJ	ABO ABO	8243460 8243460	8236521 8236521

*REQUIRES TWO HIGH CAPACITY LOW PRESSURE PISTONS IN ADDITION TO KIT
REFERENCE: CATALOG 90 PARTS GROUP 1100

Present model air compressors can be converted to efficient, low maintenance water cooling. For further information, contact your Electro-Motive representative.

Electro-Motive Air Compressor Kit . . .

Converts air-cooled compressors to water cooling for extended life, lower maintenance

Continuous operation at a 100% load factor

Present day operations place heavier demands on air compressor performance. To match these conditions, Electro-Motive has developed air-to-water conversion kits to assure top compressor performance under the most severe and continuous operating conditions. Temperature remains constant, even at a 100% load factor. Water cooling substantially improves efficiency, while reducing maintenance requirements.

Eliminates damaging oil breakdown

High-temperature operation of air-cooled compressors causes vaporization of lubricating oils which can penetrate brake systems and damage hose and valve parts. The constant temperature feature of a water-cooled compressor eliminates oil vaporization. Water cooling also provides better lubrication of compressor parts by maintaining constant viscosity, thus checking varnishing and reducing oil waste.

Simple, economical installation

Air-to-water conversion is accomplished very simply and inexpensively. Electro-Motive kits contain all necessary component parts for conversion—new cylinders, cylinder heads, intercooler and manifold assemblies. With a small amount of additional piping, the compressor obtains its coolant from the engine cooling system.

Immediate delivery

Electro-Motive's nine on-line warehouses offer convenient, prompt delivery of water-cooled conversion kits:

Los Angeles, California
Emeryville, California
North Salt Lake, Utah
Fort Worth, Texas
St. Paul, Minnesota
Halethorpe, Maryland
Jacksonville, Florida
Hazelwood, Missouri

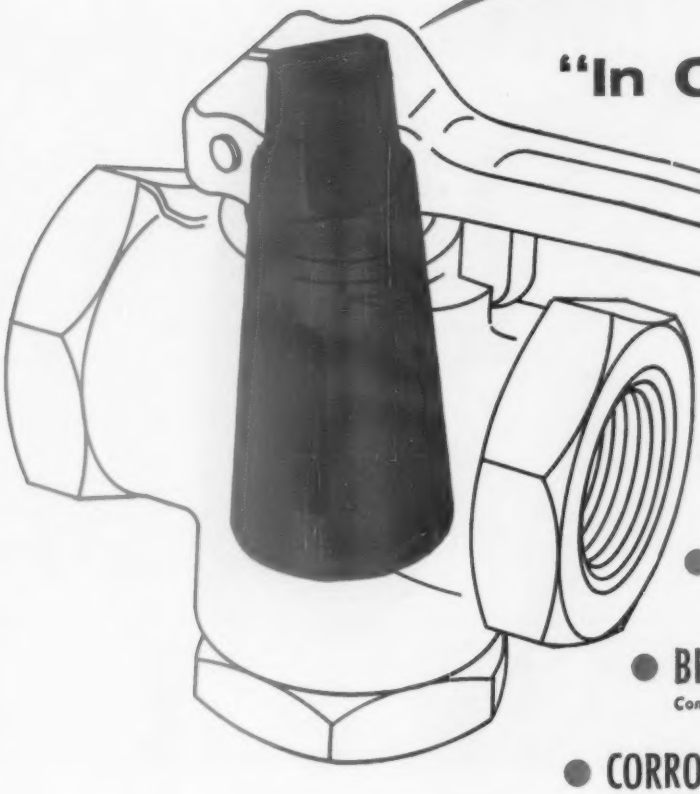
La Grange, Illinois (factory and parts center)

GENERAL MOTORS LOCOMOTIVES

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS · LA GRANGE, ILLINOIS
Home of the Diesel Locomotive
In Canada: General Motors Diesel Limited, London, Ontario

An Advancement

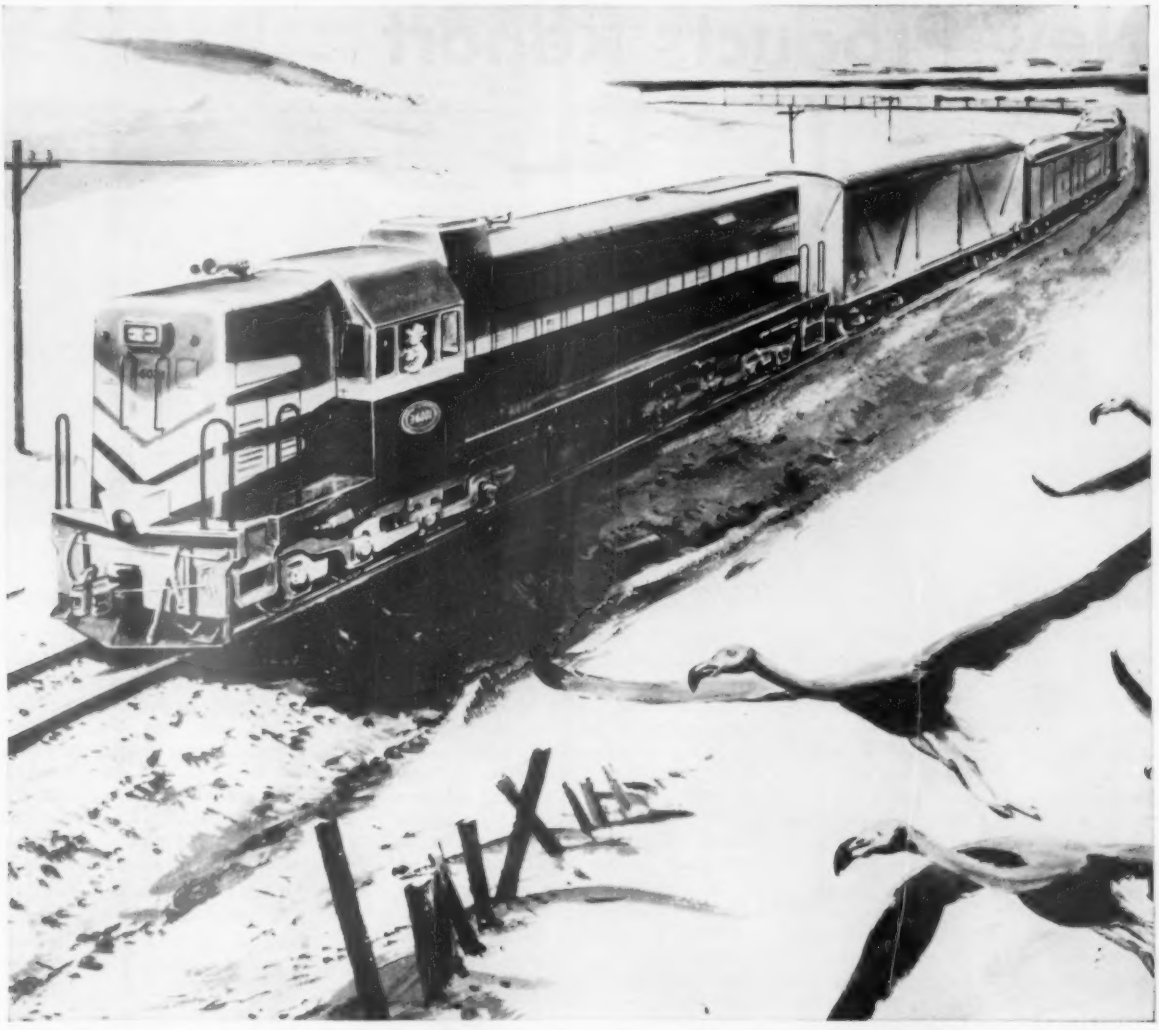
"In Cutout Cocks"



- **PERMANENTLY LUBRICATED**
  TEFLON Lubrication will not dry or be carried away.*
- **LOW OPERATING TORQUE**
  Will lessen failures due to misuse.
- **BETTER SEALING**
  Conforms to slight irregularities, eliminates leakage.
- **CORROSION RESISTANCE**
  Chemically inert and not subject to corrosion.
- **LESS CONTAMINATION**
  Permanent lubrication greatly reduces contamination.
- **MAXIMUM DEPENDABILITY**
  TEFLON coating provides minimum wear, greater life.*
- **LOWER MAINTENANCE COST**
  Longer service life greatly reduces maintenance cost.

THE NEW YORK AIR BRAKE COMPANY
230 PARK AVENUE • NEW YORK 17, N. Y.

* "TEFLON" DuPont Trade-Mark



BENDIX FUEL INJECTION HELPS BRING DIESEL POWER TO SOUTH WEST AFRICA

South West Africa is going diesel. From the Orange to Cape Frio, all freight, passenger and switching operations will be powered by General Electric diesel locomotives. And these modern locomotives, equipped with Cooper-Bessemer FVBL-12-T diesel engines, utilize standard precision-built Bendix* Fuel Injection equipment for high fuel economy and dependability.

South African Railways, which already has 45 G-E diesels in service around Johannesburg, recently purchased 115 more to replace all steamers presently in service in South West Africa. They have learned that diesel power is the key to efficient operation.

General Electric, an important locomotive manufacturer for more than 65 years, demands components of highest quality in every unit it builds. Bendix Fuel Injection has proved its value on G-E diesels around the world, at every extreme of temperature and altitude and in remote areas where dependability is absolutely vital.

Maximum efficiency at minimum cost dictates the choice of Bendix Fuel Injection equipment. That's why so many leading diesel manufacturers specify it.

*REG. U.S. PAT. OFF.

SCINTILLA DIVISION OF
THE BENDIX CORPORATION, SIDNEY, N. Y.
Export Sales and Service, Bendix International Division
205 East 42nd Street, New York 17, N. Y.
SIDNEY, N. Y.

Scintilla Division
SIDNEY, N. Y.

THE Bendix CORPORATION

New Products Report (Continued on page 82)

Battery Chargers

The Constavolt float charger (photograph) is designed for application where the charger remains across the battery at all times, the main load is intermittent, and the continuous load is small. It has no relays, contacts, fans or any moving parts. Load regulation is accomplished by a magnetic amplifier with patented circuitry which eliminates tubes and relays. A voltmeter, ammeter, and equalization switch are standard. The switch allows the charging rate to be increased for cell equalization or when a higher charging rate is desired. A separate type of the Constavolt charger is available for each voltage application dependent upon the number and type of cells used. The output curve insures that the battery is charged with a voltage above the standard float voltage after each partial discharge before it is permitted to drop back to the normal float voltage. This insures that full capacity of the battery is always available. Various other types of chargers are available for railroad applications. *La Marche Mfg. Co., Dept. RA, 3955-25th Ave., Schiller Park, Ill.*

64/12 Volt Radio

Turning a switch in the new Motrac radio converts the one-piece unit from 64- to 12-volt dc operation. The one basic radio unit may be used in engine, caboose, and maintenance-of-way applications. The same unit can also be operated as a base station from 117-volt 60-cycle ac with an external adapter. The receiver and power supply are fully transistorized. All AAR specifications are met. It mounts on a standard single unit rack and is directly interchangeable with the Stan-Pac radio now in use. RF output is 25 watts in the 144-174 mc band and 5 watts audio output. Die cast chassis and modular construction are used throughout. Fourteen transistors are used in the power supply and a built-in voltage regulator protects the radio from power surges. The transmitter final amplifier tubes and power supply transistors are cooled by outboard heat radiators. There are no ventilating holes, so dirt and moisture may be kept out. The unit is 4 by 13 by 18 in. and weighs 31 lb. *Motorola Inc., Dept. RA, 4501 W. Augusta Blvd., Chicago 51, Ill.*

Mobile Workshop and Quarters

A new Campcar 25-ft house trailer is a workshop with living quarters. Complete quarters for two men are provided, including shower, stove, sanitary closet with sewage tank, hot water heater, water storage, sleeping accommodations, and wardrobes. The work area provides a large workbench with vise, desk, file cabinet, storage racks, a shock-mounted cabinet for test equipment. *Morrison-International Corp., Dept. RA, 2485 Walden Ave., Buffalo 25, N.Y.*

Electrical Tapes

Scotch electrical tape No. 88 is an 8.5 mil pressure sensitive tape that remains pliable down to 0 deg. F. It is recommended where low temperatures or extreme abrasion or puncture resistance is desired. The No. 17 is a beige-colored version of the black No. 33 tape. A self-fusing splicing tape, No. 23, fuses readily to itself and to cable insulation down to 20 deg. F. *Minnesota Mining & Mfg. Co., Dept. RA, 900 Bush Ave., St. Paul 6, Minn.*

Hotbox Detector Carrier

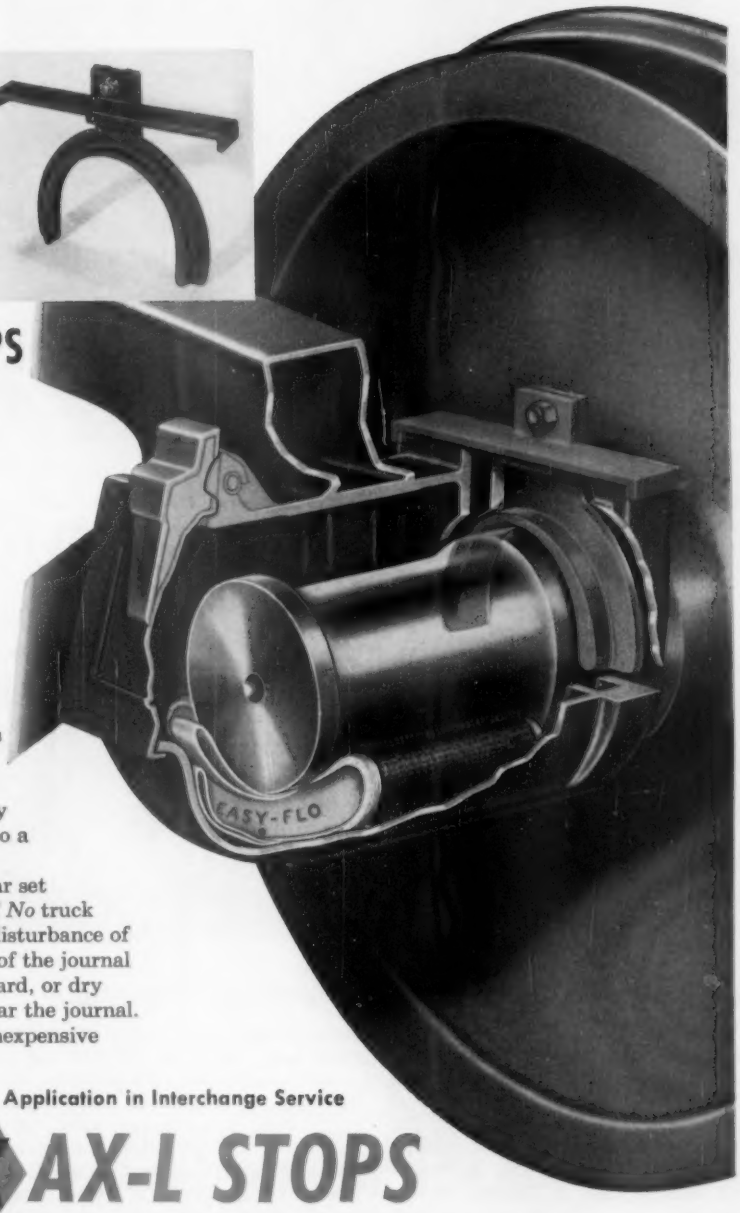
A new frequency modulated carrier system is available for use with the GE hotbox detector. The transistorized equipment is reliable, requires little maintenance, and there is no transmitter drain on the power supply, except when a train is passing. Equipment is coupled to open wire telephone lines or cables. A receiver squelch circuit turns on the recorder when hotbox signals are to be recorded. *General Electric Co., Dept. RA, Lynchburg, Va.*

Diesel Generators

A new series of 2,000-, 5,000- (photograph), and 7,500-watt diesel electric plants is available. Designed for use as a sole power source or as standby electric plants, the new units offer the advantages of diesel fuel economy, safety, and continuous full load performance with minimum maintenance. Push-button and manual start models have a manually operated compression release. Remote start models use a solenoid. *Kohler Co., Dept. RA, Kohler, Wis.*

At Last... Simplified

CLAMP-ON AXLE CONTROL



Install AJAX AX-L STOPS in minutes...without truck dismantling!

It's revolutionary! It's the simplest, easiest-to-install axle control! The Ajax AX-L Stop positively controls motion of the journal, wedge and brass on impact and brake application. Lengthens the life of bearings, lubricators, dust guards and seals. Rugged service tests prove that AX-L Stops withstand severe impacts.

The Ajax AX-L Stop clamps securely to the back of the journal box. It is also a dust guard well cover, eliminating the need for sealing or plugging. A whole car set can be installed *in less than 20 minutes! No* truck dismantling, *no* drilling or welding, *no* disturbance of other truck parts! *Nothing* goes inside of the journal box! AX-L Stop controls at the dust guard, or dry seat, and positively *cannot* score or wear the journal.

Get desirable *axle control* the easy, inexpensive Ajax way.

A. A. R. Approved for Limited Application in Interchange Service

PRI MEMBER

AJAX AX-L STOPS

AJAX-CONSOLIDATED COMPANY, Division of Southern Electric, Inc.
8701 S. Greenwood Avenue, Chicago 19, Illinois • In Canada: The Holden Company, Ltd., Montreal

New Products Report (Continued from page 80)

Waystation Dialing Equipment

New dial telephone equipment uses existing selectors and local battery systems to provide complete dial service. The waystation dial unit (photograph), a compact case containing a dial and a key lever switch, operates up to 60 miles on 3 volts. Additional cells increase the range. The control unit, connected directly to the exchange equipment, converts dial pulses to selector pulses and vice versa. *Automatic Electric Co., Dept. RA, Northlake, Ill.*

Train Radio Control System

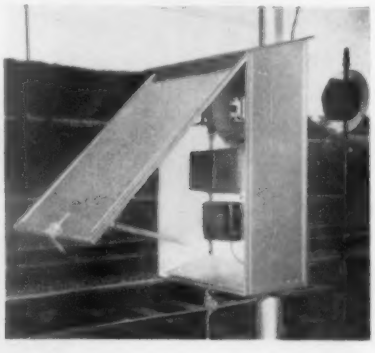
The series 9100 remote control equipment furnishes a coordinated mainline controlled radio system of all fixed base stations. The radio control system utilizes all existing methods of operation in a train dispatching telephone system plus simplexed dc control functions on the physical line. The dispatcher may select locations for intercommunication, radio monitoring, or two-way radio operation. *R. W. Neill Co., Dept. RA, 4320 Montrose Ave., Chicago 41, Ill.*

Transverse Positioning Cylinder

A transverse positioning cylinder enables the operator to move the Hydraulic earth borer sideways. From the centerline of the derrick, the cylinder will move the digger 11 in. left and 29 in. right. With the device, holes can be bored close to a standing pole or obstruction and truck maneuvering is reduced. It can be used on the 6800 derrick with 5400-, 4450-, and 4401-H earth borers. *Holan Corp., Dept. RA, 4100 W. 150th St., Cleveland 35, Ohio.*

Pocket Radio

The Voice Director is a new all-transistorized shirt pocket personal message radio communication receiver weighing 12 ounces with battery. Frequencies in the 150-174 mc range will be used. The receiver uses a single 6½-volt mercury battery. A ferrite loop stick antenna is built into the case. A directive horn is used when privacy is not required, otherwise an ear piece (part of the horn assembly), may be used. *General Electric Co., Dept. RA, Lynchburg, Va.*

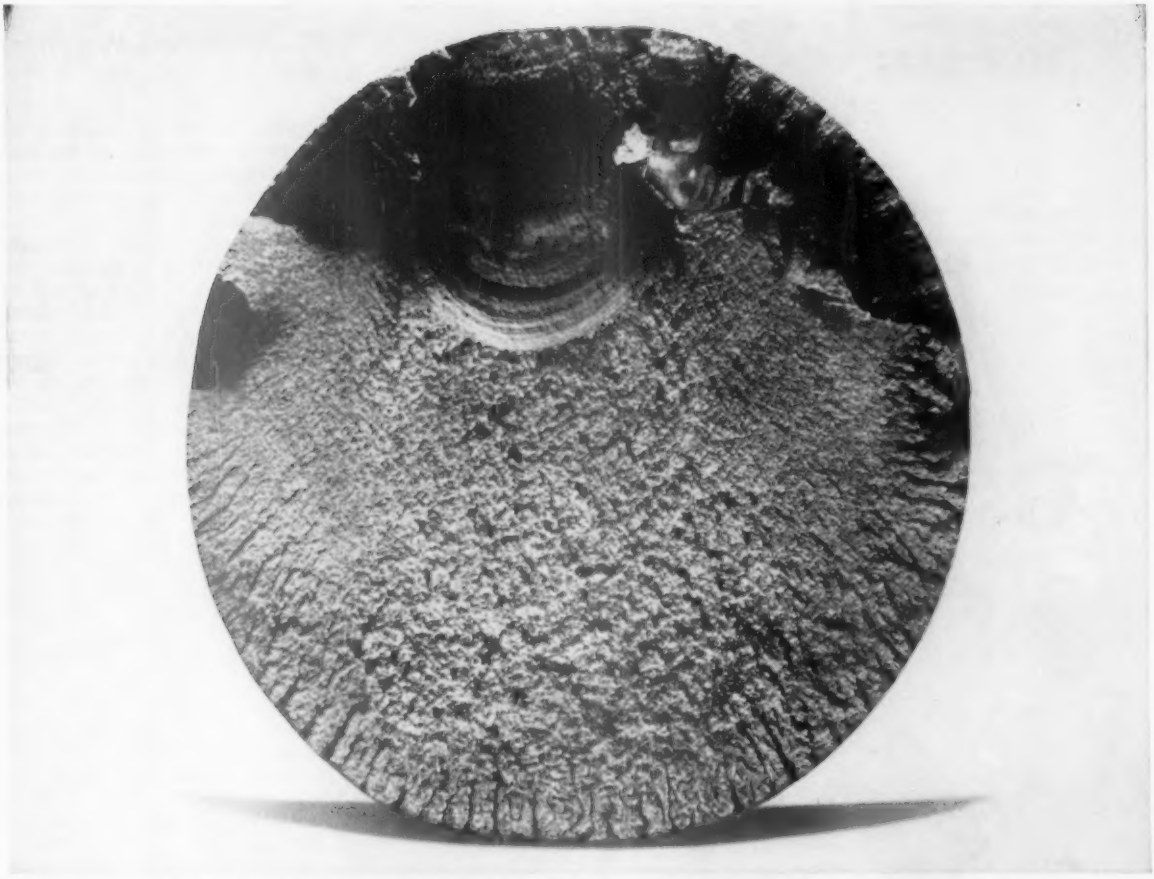


Communication Housings

Zero housings are new telephone, cable, and communications housings for outdoor use. Standard-size panels and hardware are assembled using a new epoxy resin as a bonding agent, then baked. The baking transfers the housing into one piece. Weather tightness is assured by the aluminum skins, which protect interior and exterior without painting. They are available in stock and custom sizes. *White Division, Zero Mfg. Co., Dept. RA, Palmer, Mass.*

Data Transmission Terminal

The model 1726 high speed data transmission terminal is a frequency shift terminal designed for the transmission of data at speeds up to 7,000 bits per second and may be directly applied to microwave or open wire circuits. The transmitter input and the receiver output are compatible with most currently available high-speed data equipment. The terminal mounts on a standard relay rack. *Radio Frequency Laboratories, Inc., Dept. RA, Boonton, N.J.*



CRACKED JOURNALS DISCOVERED

...before cars move over road

CURTISS-WRIGHT ECHOMETER Spots Cracked Journals ... Quickly, Accurately, Simply

Detected by the Echometer, *the cracked journal shown in the main illustration could not have been discovered by any other yard inspection method.* One road tested and proved the Echometer to be highly effective with a "mass journal screening" operation—discovering 81 cracked journals in six months. Any one of these cracked journals might subsequently have caused extensive damage.

Echometer Railroad Journal Test Sets detect defects in freight car journals ultrasonically. Simple to operate, these highly mobile and lightweight units signal cracked journals with both warning light and buzzer alarm. Up to 60 cars per hour can be checked with the Echometer, and rapid rates of inspection maintained in wheel shops and on repair tracks.

One Echometer user utilizes the test equipment at their interchange yards, with no extra personnel needed to inspect inbound freight cars. The regular inspection crew checks the journals on all inbound cars—invariably detecting cracked journals *before* the cars move on along the road. This preventive maintenance procedure is an invaluable safety service for each road concerned—eliminating potential trouble *before* it can occur. There are no operating schedule delays due to Echometer journal inspection.

A product of its Princeton Division, this economic and reliable railroad testing device is typical of the advanced technology which is at the service of Curtiss-Wright's world-wide governmental and industrial customers.

PRINCETON DIVISION

CURTISS-WRIGHT

CORPORATION • PRINCETON, N. J.

RAILROAD SALES REPRESENTATIVES: **CURRENT CONTROLS CORP.**

CHICAGO: 200 SOUTH MICHIGAN AVE., 4—NEW YORK: ROOM 3702, 122 EAST 42ND ST., 17

SEE US AT THE SAN FRANCISCO SHOW . . . BOOTH 217

THE ADLAKE MAN is lots of things to lots of people. To railroaders, he represents a century of service in supplying top quality windows, lamps, hardware, locks, relays, diaphragms and other products. A phone call, note or wire will bring the Adlake Man to your desk in a hurry, anxious to help in any way he can.

Adlake

The Adams & Westlake Company, Elkhart, Indiana, Phone COngress 4-1141. Chicago Sales Office: 135 S. LaSalle St., Phone FInancial 6-6232. New York Sales Office: 50 Church Street, Phone COurtland 7-0073.

TOFC, Containers May Win Back Furniture Traffic

Piggyback service—especially if supplemented by some system of standardized interchangeable containers—"could return a great deal of furniture traffic to the railroads."

That was one of the conclusions which emerged from a trucking conference sponsored by the National Association of Furniture Manufacturers, in cooperation with the National Furniture Traffic Conference and the University of Michigan's transportation department, at Ann Arbor, May 25-27.

Private trucking of new furniture, conference speakers said, has proved both faster and safer than conventional common carrier service. It provides manufacturers with a strong sales argument, particularly in dealing with retailers who work on a low inventory basis. Thus, even though "furniture manufacturers may not like to be in the trucking business, common carriers will have to do a lot more than cut rates and improve service to get business back."

Railroads came in for special criticism. "They are not particularly anxious to handle additional furniture traffic. This is proved by their continually increasing rates, by their requiring more expensive packaging, and yet giving generally poor service. Excessive damage is still incurred . . . attributable, not completely to the fragility of the product, but rather to improper handling by railroad personnel."

Such disabilities might be largely overcome, the conference conceded, by the anticipated speed, safety and economy of containerized or trailer-on-flat car handling.

Despite their criticism of common carriers, some of the furniture men indicated that they have gone into private trucking on the basis of actual or assumed competitive need, rather than of a sound professional approach. "They have never known the true costs of fleet operation . . . do not have a clear concept of the cost of fringe benefits (or of fringe expenses) incurred in trucking . . . are wasting" money through inefficient handling of transportation problems or failure to employ full-time transportation executives.

Furniture manufacturers, the conference revealed, tend to consider their private trucking operations as: (1) a separate entity, on which they attempt to show a profit or loss by comparing their costs with common carrier costs; or (2) an expense of doing business, with no attempt to estimate profit or loss. Most firms do not consider factory loading as part of trucking cost, and there seems to be no generally accepted overall cost measure.

TAKE A NEW LOOK!

HYATT TAPER FREIGHT BEARINGS DESIGNED FOR THE LONG HAUL . . .

There's a good reason to look again to Hyatt. It's the new, A.A.R. approved Hyatt taper bearing for freight cars. This new bearing has been designed and tested for high-speed, high-mileage runs. Already in volume production, it is manufactured to rigid quality standards to insure complete reliability.

ON DISPLAY FOR THE FIRST TIME!

At the Railway Electrical and Mechanical Supply Association
Jack Tar Hotel, San Francisco—June 13-15—Booth 219

See for yourself at the show . . .
or write for folder RR-10.

HYATT *HY-ROLL BEARINGS*
FOR NON-STOP FREIGHT

GM GENERAL MOTORS

HYATT BEARINGS DIVISION • GENERAL MOTORS CORPORATION • HARRISON, NEW JERSEY

Letters from Readers

Slumbercoaches

Philadelphia, Pa.

To the Editor:

Here's a few words of thanks and congratulations on the excellent job you did with the recent Slumbercoach story (RA, May 16, p. 22).

I have had a number of favorable comments and, who knows, perhaps we may get some more business . . .

Joseph B. Kelly
Advertising & Public Relations Dept.
The Budd Company

'Necessary Discrimination'

Fort Lauderdale, Fla.

To the Editor:

Should railroads pay travel agents? (RA, May 16, p. 33). Definitely yes.

Having worked both sides of the street as a passenger traffic solicitor for a railroad and as a travel agent it is my firm belief that not only would the railroads and travel agents benefit but that the public would as well.

Closing of city ticket offices has forced rail passengers to pick up their tickets at depots which may or may not be convenient to their places of business while airlines have opened new ticketing facilities, supplementing great numbers of travel agencies located close to busy industrial and commercial areas. All this makes it easy to pick up an air ticket and difficult to pick up a rail ticket.

The travel agent, with a sharp instinct for self-preservation, is going to sell air travel on which he will gross 5% for domestic sales in lieu of rail transportation on which he grosses nothing. It is not intentional discrimination but necessary discrimination if the travel agent is to remain in business.

If it were possible to determine how much NEW business could be created for the railroads by paying commissions to travel agents the question could be easily resolved, but instead the decision must be based on what the carriers think can be achieved by travel agency representation. In my opinion the factor to be considered is the amount of potential rail that is diverted to air.

The statement that travel agents tied up space during the war to the detriment of the railroads is not quite true. Granted that some space was held in this manner but the greatest evils were perpetrated by rail employees themselves who held space under phony ticket numbers, held space in general offices for assignment by officers, assigned blocks of space to various industrial accounts and connivance between reservation clerks and hotel porters. Ethical operation of reservation bureaus, a railroad problem, would obviate these distasteful practices.

Payment of commissions by railroads is not the only answer. Railroads must make it easy for travel agents to sell rail travel and for the railroads to compete the travel agent must have a stock of rail and Pullman tickets on hand for immediate ticketing and this is no great problem. As a matter of fact the railroads can do a better job than the airlines on this score since only one stock of book type tickets would be necessary to be used for ticketing on all railroads. Similarly Pullman tickets could be in stock. Reports could be made on a semi-monthly basis as are air reports with ticket stubs and checks to cover sent to one clearing house, such as RTPA (Rail Travel Promotion Agency) headquarters for handling.

Personally I would like to sell rail transportation but not at the present methods where only the package tour is commissionable. We should have a 5% commission on all regular traffic and the commission should apply to Pullman tickets as well.

In closing, the railroads could help themselves by a more enlightened policy of accepting checks from passengers for transportation—one station here will not even accept a check from a travel agent—and increase the baggage allowance to 350 pounds for passengers using steamships from ports to overseas destinations.

George F. Foote
The Beach Travel Service

Correcting the Record

Cleveland, Ohio

To the Editor:

With reference to the article in your May 23 issue on "C&O, B&O Move Toward Merger," the [proposed stock exchange] would not involve some 4,500,000 C&O shares as noted in the third paragraph of the text. Actually, the amount of stock involved is around 2,000,000 shares.

M. B. Dolinger
Manager, News Division
Chesapeake & Ohio

PIGGYBACK PROBLEMS? Let us solve them with proven service.

For piggyback trailers, reefers, and containers:

Maintenance & Repair
—on contract basis—for all makes of trailers, covering all phases of repair and upkeep, by expert mechanics, factory trained. We keep a full supply of all parts, use only the most modern equipment. Twenty-four hour service.

Service
—loading and unloading of trailers. Also complete loading ramp and yard maintenance.

Manufacturing
We'll build any type of trailer to your exact specifications.

Leasing
—trailers of all types for piggyback service.

These services are organized on a continent-wide basis, available to all U. S. and Canadian railroads. Let us prove we can satisfy your particular needs and solve your specific problems.

LEONARD J. SIMONS CO., 1950 River Road, Melrose Park, Illinois

Better Paperwork Is Coast Line Goal

Forty Coast Line supervisors have completed a course teaching shorter and better report writing. More officers and managers will take the course following this summer's move of ACL general offices to a new Jacksonville building. Eventually, all supervisory personnel will take the course.

Why? Operating efficiency, whether expressed in running trains or writing reports, is the surest way to reduce waste and cut costs. On the Coast Line, improvement in operating efficiency in all forms is getting close attention.

Coast Line President W. Thomas Rice is backing the report-writing course as a part of a long-range program to increase executive effectiveness and improve operating efficiency. A style manual of company correspondence is already in the works to supplement the course, and other methods of cutting administrative costs are under study. Later will come a company-wide drive to improve efficiency and cut costs in letters and reports.

How They Do It

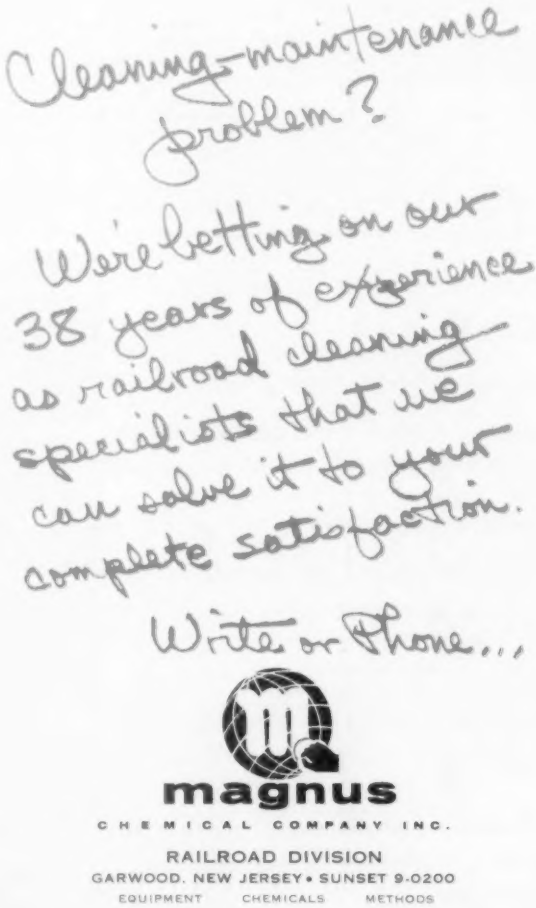
Teaching the report-writing is ACL attorney David E. Wells, who has condensed into a 12-hour curriculum a 40-hour course of the American Management Association on "Writing Diseases and How to Cure Them." The actual subject matter has been condensed very little, but 20 hours of workshop practice in the AMA course were cut to a single session for ACL. This has made it possible to schedule a week of daily morning sessions with extra time alloted to Saturday and still not keep men out of their offices unduly.

Personnel are assigned to the class by department heads, in a ratio roughly comparable to the size of the department. So far, rosters have included a variety of titles from chief clerk to general freight traffic manager and assistant to president. Makeup of the two classes so far completed was determined partly because of an individual's direct supervision of (or preparation of) reports and other correspondence, partly because the class fitted conveniently into work schedules.

Course content is based on AMA material, supplemented with references to William Strunk's *The Elements of Style* and material from the monthly syndicated "Better Letters." For emphasis, instructor Wells has been using 22-in by 28-in visual cards, which can also serve later in the course review.

Appraisal sheets filled out by graduates show general agreement that the course has value in improving business communication—and an informal survey by Wells points out a worthwhile improvement by some students in the ability to condense a subject to clear essentials plus an overall improvement in the general writing quality, including ease of expression.

Instructor Wells, who attended the AMA class taught by Professor Robert S. Burger in New York, says that one of the greatest benefits was the opportunity to meet executives from other industries and exchange ideas, information and experience. He feels that more railroads should partipicate—if for no other reason than that the courses are a good opportunity to tell the railroad story. CPR, C&O, EJ&E and the Union Railroad are other roads that have been represented in Professor Burger's AMA classes.


Cleaning-maintenance problem?
We're betting on our 38 years of experience as railroad cleaning specialists that we can solve it to your complete satisfaction.
Write or Phone...
magnus
CHEMICAL COMPANY INC.
RAILROAD DIVISION
GARWOOD, NEW JERSEY • SUNSET 9-0200
EQUIPMENT CHEMICALS METHODS

People in the News

ASSOCIATION OF AMERICAN RAILROADS.—Karl F. Wright, general superintendent of police, Baltimore & Ohio, Baltimore, Md., elected chairman, Protective Section, AAR.

CANADIAN NATIONAL.—John C. Gardiner, assistant freight traffic manager, Montreal, has been appointed manager of freight sales development, a new section established to carry out studies on rate making techniques, equipment and service. The freight sales development branch will also have the responsibility for traffic forecasting and sales objectives and planning market surveys in consultation with the market research group. **William Hyman,** traffic analyst, and **Rod R. Latimer,** traffic research officer, have been appointed assistant managers of the new section.

CANADIAN PACIFIC.—Howard C. Reid, assistant comptroller, Montreal, Que., appointed assistant vice president—finance, succeeding **James Masters,** promoted to vice president—finance (RA, May 16, p. 62).

CHESAPEAKE & OHIO.—S. F. Witt, assistant to vice president—merchandise traffic, Cleveland, appointed freight traffic manager—staff, at that point.

K. E. Bomar, assistant trainmaster, Huntington, W. Va., appointed trainmaster, James River sub-division, Clifton Forge, Va., succeeding **A. H. Durdan,** retired. **A. B. Cary** named trainmaster, Saginaw, Mich., succeeding **E. E. Amberg. F. A. Budreau** appointed supervisor station service, Columbus, Ohio, succeeding **B. A. Hoffman,** promoted to assistant to manager station service and freight claim prevention, Grand Rapids, Mich., to replace **F. M. Walters,** retired.

R. G. Bias appointed general foreman, Russell car shop, Russell, Ky., succeeding **E. I. Ellis,** retired.

CHICAGO & NORTH WESTERN.—L. J. Dono appointed assistant to chief engineer, Chicago, to succeed **C. E. Hise,** who retired May 31.

ELGIN, JOLIET & EASTERN.—Frederick V. Fisher, land and tax agent, Joliet, Ill., appointed industrial and land commissioner there, and his former position abolished.

FRISCO.—Merton I. Gross, traffic representative, Minneapolis, named district manager-sales, Davenport, Iowa.

MILWAUKEE.—S. E. Herzog, assistant superintendent, Coast division, Tacoma, Wash., appointed staff assistant to vice president—personnel, Chicago, succeeding the late **Alvin G. Britzius** (RA, May 16, p. 62). **R. E. Beck,** trainmaster, Spokane, Wash., transferred to the Coast division, Tacoma. **F. B. Cederholm,** dispatcher, Tacoma, named chief train dispatcher, Coast division there, to replace Mr. Beck.

J. D. Simon, assistant superintendent, Iowa division, Marion, Iowa, appointed train rules examiner there. **J. W. Stuckey,** assistant superintendent, Iowa, Minnesota & Dakota division, Sioux City, Iowa, succeeds Mr. Simon, and in turn is replaced by **R. W. Riedl,** transferred from LaCrosse, Wis. **S. O. Jones,** trainmaster, Milwaukee Terminals, Milwaukee, Wis., appointed trainmaster, LaCrosse & River division, LaCrosse, to succeed Mr. Riedl, and in turn is succeeded by **A. G. Beauvais,** trainmaster, Iowa, Minnesota & Dakota division, Austin, Minn. Mr. Beauvais' successor is **F. A. Deutsch,** transferred from Milwaukee. **G.A. Chamberlain,** trainmaster, Bensenville, Ill., transferred to the Rocky Mountain division, Harlowton, Mont. **K. O. Schoeneck,** assistant superintendent, Dubuque & Illinois division, Dubuque, transferred to the Milwaukee Terminals, Milwaukee. Mr. Schoeneck's successor is **W. T. Stewart,** assistant superintendent, LaCrosse & River division, Portage, Wis., who in turn is replaced by **R. L. Hicks,** transferred from the Dubuque & Illinois division, Ottumwa, Iowa. **J. F. O'Dore,** assistant superintendent, Harlowton, replaces Mr. Hicks.

NEW YORK CENTRAL.—Ralph N. Cramer, manager, Flexi-Van sales and service, Cincinnati, appointed assistant freight sales manager, Chicago.

NORFOLK & WESTERN.—Wade M. Merritt, city ticket agent, Cincinnati, Ohio, appointed division passenger agent, Norfolk, succeeding **Harvey E. Brown,** who retired June 1.

READING.—Robert A. J. Morrison, assistant vice president—operations and maintenance, Philadelphia, elected vice president—operations and maintenance, succeeding **E. Paul Gangewere,** elected president of the road (RA, May 30, p. 37). Mr. Morrison's former position abolished.

SERVOSAFE® HOT BOX DETECTIVE*

Grouping **1**

Basic system, plus SERVOSIG® Carrier

SERVOSAFE® HOT BOX DETECTIVE*

Grouping **2**

Basic system, plus Automatic Alarm

SERVOSAFE® HOT BOX DETECTIVE*

Grouping **3**

Basic system, plus Automatic Alarm and SERVOSIG Carrier (remote recorder location)

SERVOSAFE® HOT BOX DETECTIVE*

Grouping **4**

Basic system, plus Automatic Alarm with railroad carrier (wayside recorder)

SERVOSAFE® HOT BOX DETECTIVE*

Grouping **5**

Basic system, plus Automatic Alarm with SERVOSIG Carrier (wayside recorder)

*Protected by U.S. & Foreign Patents, including U.S. Patent No. 2,880,309. Other U.S. & Foreign Patents Applied For.

John C. Gardiner
CNR

Howard C. Reid
CPR

Robert A. J. Morrison
Reading

Harry B. Gauntt
Reading

Earl R. Hostetter
UM&P

Floyd O. Johnson, Jr.
CF&I

Harry B. Gauntt, superintendent, Philadelphia division, named assistant general manager of the road at Reading, Pa. **Earl T. Hunter,** assistant superintendent, Philadelphia division, succeeds Mr. Gauntt. **Carl Rittenhouse,** day terminal trainmaster, Reading Terminal, Philadelphia, succeeds Mr. Hunter. **D. F. Steimling,** assistant manager—marine agent, Port Richmond Terminal, Philadelphia, appointed manager, Port Richmond Terminal, succeeding **E. F. Keene,** who retired May 31. **J. W. Stapleton** succeeds Mr. Steimling.

SANTA FE.—R. L. D. McAllister, general agent, passenger department, Los Angeles, advanced to general passenger agent there, succeeding the late **Sig Carlson. Glenn W. Queen,** passenger agent, appointed division passenger agent, Los Angeles, succeeding **Charles C. North,** who replaces Mr. McAllister. **R. T. Patterson** named general agent, Portland, Ore., succeeding **L. L. Bonds,** appointed assistant general freight agent, San Francisco, replacing **Raymond T. Snook** (RA, June 6, p. 43).

SOUTHERN PACIFIC.—David I. Pugh appointed engineer of appropriations, San Francisco, succeeding **William L. Mogle,** who retired May 31.

R. R. Edwards, communications equipment engineer, San Francisco, appointed assistant superintendent of communications, Houston, Tex., succeeding **John N. Albertson,** promoted to assistant general superintendent of communications—system, San Francisco (RA, April 18, p. 44).

TEXAS & PACIFIC.—Effective June 1, the office of **C. G. Hayes,** vice president—marketing, changed from 306 Texas & Pacific building, Dallas 2, Tex., to 409 Fidelity Union Tower, 1507 Pacific Avenue, Dallas 1, Tex.

UNION PACIFIC.—Walter P. Barrett, assistant general freight agent, Omaha, Neb., appointed assistant freight traffic manager there, succeeding **Martin Holbrook,** who retired May 31. **C. D. Chambers** succeeds Mr. Barrett.

UPPER MERION & PLYMOUTH.—Earl R. Hostetter, vice president, Conshohocken, Pa., elected president and board chairman, succeeding **Harlan P. Ross,** retired.

Supply Trade

Floyd O. Johnson, Jr., railroad sales engineer, **Colorado Fuel and Iron Corp.,** Denver, has been appointed assistant to general manager, railroad sales there.

(*Continued on page 91*)

6

give you

proved systems to beat the hot box hazard

No guessing when it comes to the SERVOSAFE® Hot Box Detective* or any of its expanded Groupings. Here are *six* debugged, time-tested, operational systems—not just ideas—designed to provide individual solutions to the individual hot box detection problems of each individual road.

Twenty-six major Class I railroads, 200 successful installations can't be wrong!

...when you plan to install expanded hot box detection systems, here are more key reasons why it pays to be safe with SERVOSAFE:

- **The only patented and proved equipment available today.**
- **Eight years of development and application experience enable Servo engineers to recommend optimum locations—the precise system to fit each problem and location.**
- **Installation and operation supervision by SERVOSAFE Hot Box Detective specialists.**

Install the systems perfected by the pioneers of the famed SERVOSAFE Hot Box Detective. Whether you prefer to purchase or lease, contact the Railroad Products Division without delay.

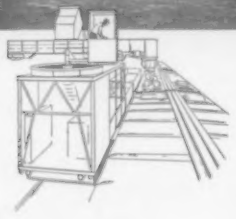
"Serving Safety Through Science"

SERVO CORPORATION OF AMERICA

Railroad Products Division • 111 New South Rd., Hicksville, L. I., New York • WEIls 8-9700

* **SAN FRANCISCO, JUNE 13-16**—See SERVOSAFE systems in operation at the AAR Mechanical Section and Electrical Section Conventions. **DETROIT, JUNE 14-16**—See the Servo Railroad radio systems at the AAR Communication Section Convention.

THE DIFFERENCE BETWEEN "SLOW" AND "GO"
IN BUNKER ICING OPERATIONS



CONVEYCO RAIL MOUNTED ICER

Here is all the convenience and advantage of a mile-long ice dock...without the prohibitive installation costs. And you can relocate anytime as needed quickly and easily.

The self-propelled Conveyco Rail Mounted Icer operates on an assigned standard gauge track ...to ice cars of trains pulled in on adjacent tracks on either side. Icing is accomplished without uncoupling cars or shuttling to ice docks...and it's all done while other service work on trains is being done. Savings in time are tremendous.

Conveyco Icer carries its own ice supply... produces standard bunker ice, meat car and frozen food bunker ice, and snow ice for top icing... has automatically operated salt supply.

Get the full money saving story on bunker icing with Conveyco—write or phone today!

CONVEYCO

THE CONVEYOR CO.
ENGINEERS and MANUFACTURERS

3260 E. Slauson Ave. Los Angeles 58, Calif.
LUdlow 2-8411

MONORAILS

by HERMANN S. D. BOTZOW, JR.

• *An authoritative book of fascinating interest to everyone concerned with the future of transportation.*

This recently published book gives an objective view of the potential of monorail transportation in the United States. Following the introductory section, which traces the history of monorail, the author discusses types, cars, track and structures, stations, wayside equipment, particular monorail characteristics, and the economics of monorail as a means of transportation.

The appendices contain detailed data on constructed and proposed monorails, car characteristics, rail cross-sections, rail supports, operating costs, and platform clearance diagrams. The bibliography is probably the most complete of any on the subject.

104 pp. 15 illus. 10 diagrams and charts. $3.95

Simmons-Boardman Books
30 Church St., New York 7, N. Y.

Please send Botzow: MONORAILS, for which I enclose $3.95.

Name .....

Street .....

City ..... State .....

STUCKI

SIDE BEARINGS

FOR PROVEN DEPENDABILITY
LONG LIFE
HIGH CAPACITY
FREE SWIVELING TRUCKS

MATERIAL:
HIGH CARBON
ROLLED STEEL

A. STUCKI CO.
OLIVER BLDG.
PITTSBURGH, PA.

SUPPLY TRADE

(*Continued from page 89*)

Harrison Johnston has been appointed marketing manager of **Lynch Communication Systems Inc.** Mr. Johnston's appointment will encompass the duties of sales manager, which were taken over in April from the late **E. B. Stone.**

William C. Oberlin, chief engineer, glass division, **Pittsburgh Plate Glass Co.,** has been appointed director of engineering, succeeding **John M. Fisher,** who will retire Aug. 1. **Robert M. Hainsfurther,** general manager, plate glass factories, has been elected vice president production, glass division. **Ralph V. Reisgen,** vice president of glass manufacturing, will retire Aug. 1.

OBITUARY

Andrew J. Bouchonville, 58, traffic manager, **Elgin, Joliet & Eastern,** died May 27 at Chicago.

William A. Murphy, 68, retired assistant freight traffic manager, **Milwaukee,** died June 2 at Oak Park Hospital, Oak Park, Ill.

Dividends Declared

ATLANTA & CHARLOTTE AIR LINE.—$4, semiannual, payable Sept. 1 to holders of record Aug. 19.

CLEVELAND & PITTSBURGH.—4% special guaranteed, 50¢, quarterly; 7% regular guaranteed, 87½¢, quarterly, both payable Sept. 1 to holders of record Aug. 10.

ERIE & PITTSBURGH.—guaranteed stock, 87½¢, payable Sept. 12 to holders of record Aug. 31.

KANSAS CITY SOUTHERN.—common, $1, quarterly, payable June 15 to holders of record May 31; 4% preferred, 50¢, quarterly, payable July 15 to holders of record June 30.

KANSAS, OKLAHOMA & GULF.—6% preferred, $3, semiannual, paid June 1 to holders of record May 21.

LOUSVILLE, HENDERSON & ST. LOUIS.—$2.50, semiannual, payable Aug. 15 to holders of record Aug. 1.

NASHVILLE & DECATUR.—guaranteed, 93¾¢, semiannual, payable July 1 to holders of record June 20.

NORTHERN PACIFIC.—55¢, quarterly, payable July 29 to holders of record July 8.

PHILADELPHIA, GERMANTOWN & NORRISTOWN.—$1.50, quarterly, payable Sept. 6 to holders of record Aug. 19.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7% preferred, $1.75, quarterly, payable Sept. 1 to holders of record Aug. 19.

READING COMPANY.—4% non-cumulative 1st preferred, 50¢, quarterly, paid June 9 to holders of record May 19.

RICHMOND, FREDERICKSBURG & POTOMAC.—voting common, $1, quarterly; dividend obligation, $1, quarterly; 6% guaranteed, 50¢, extra; 7% guaranteed, 25¢, extra, all payable July 1 to holders of record June 20.

ROCHESTER & GENESEE VALLEY.—$2, semiannual, payable July 1 to holders of record June 20.

ST. LOUIS SOUTHWESTERN.—$7.50, payable June 2 to holders of record May 16.

SOUTHERN PACIFIC.—28¢, quarterly, payable June 20 to holders of record May 31.

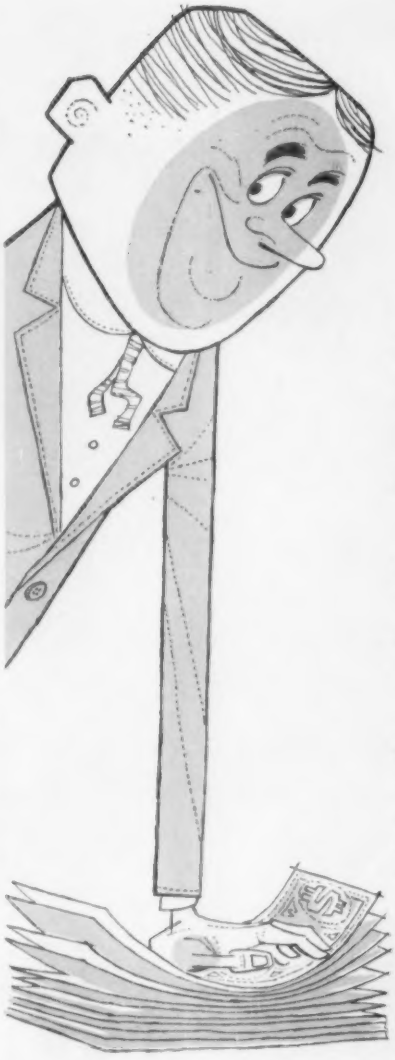
TROY & GREENBUSH.—$1.75, semiannual, payable June 15 to holders of record May 31.

UNION PACIFIC.—30¢, quarterly, payable July 1 to holders of record June 6.

WEST JERSEY & SEASHORE.—$1.50, semiannual, payable July 1 to holders of record June 15; 6% special guaranteed; $1.50, semiannual, paid June 1 to holders of record May 13.

WESTERN PACIFIC.—new common, 25¢, initial, paid May 16 to holders of record May 2.

WHEELING & LAKE ERIE.—common, $1.43¾, quarterly; 4% prior lien, $1, quarterly, both payable Aug. 1 to holders of record July 8.



built to hold down operating costs

International Cabooses are designed with these aims in mind — to render long years of service under today's high speed, long train conditions, with the absolute minimum of maintenance. This they do — and cost records on many railroads prove it. Each model incorporates welcome advances in train crew safety and comfort. Find out why it pays, in many ways, to deal with specialists in the caboose building business. Write International Car Division, 2485 Walden Ave., Buffalo 25, N. Y.

INTERNATIONAL Cabooses

Rolling Up Records for Safety and Economy on America's Leading Railroads

MORRISON-INTERNATIONAL CORP.

A SUBSIDIARY OF RYDER SYSTEM, INC.

All major railroads rely on Gould Batteries for dependable, low-cost diesel starting

Expertly engineered from cover to plate. Gould Kathanode Batteries with the new Silconic Plate provide that extra reserve power needed for fast breakaway torque and continued operation in all kinds of weather!

25% more battery life. With the vital new Silconic Plate, Gould Kathanode Batteries offer greatly increased life through prevention of grid corrosion, the most common cause of battery failure. Here's the principle: Gould introduces silver and cobalt into active materials of the positive plates. The silver and cobalt migrate to—and collect on —positive grid members, forming an insoluble oxide surface impervious to acid and oxygen attack.

For the heavy current drains required in diesel starting, there's no finer, more reliable battery than the Gould Kathanode. Call your Gould representative for the complete story. He's listed under "Batteries—Industrial" in the Yellow Pages. Gould-National Batteries, Inc., Trenton 7, New Jersey. In Canada, write to Gould-National Batteries of Canada, Ltd., 1819 Yonge St., Toronto, Ontario.

Gould Diesel Starting Batteries with Silconic Plates resist corrosion, hold their charge and last longer.

More Power to you from **GOULD**

Southern Pacific lightweight baggage and express car

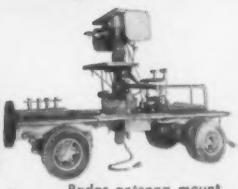
Cleveland rapid transit car

New York rapid transit car

LVTP—5 amphibian tank

Union Pacific lunch-counter cafe lounge car

Wolfwagon

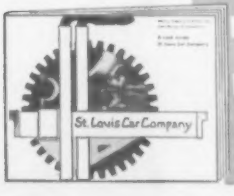


Radar antenna mount

YOU NAME IT... WE'LL BUILD IT!

With more than 70 years' experience, and a sixty-five acre plant, ST. LOUIS CAR COMPANY is equipped and staffed to build ANY EQUIPMENT YOU MAY NEED!

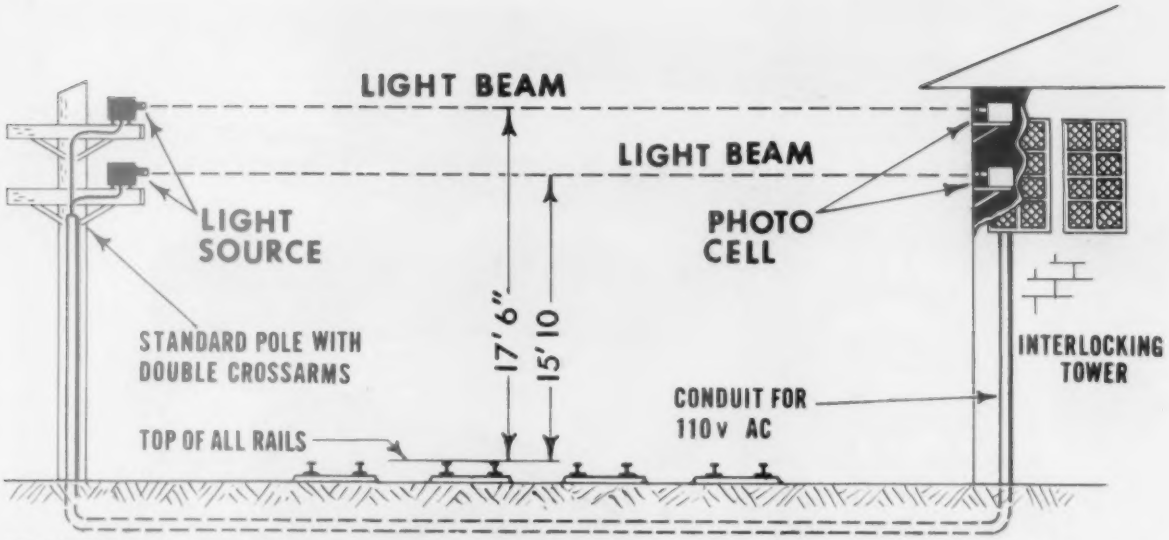
FREE 20-PAGE BROCHURE...
Shows equipment, facilities, experience and the versatility of our production program. Write today!



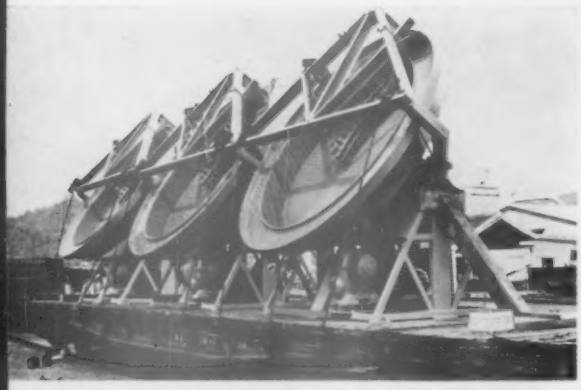
PMI MEMBER

St. Louis Car Company

8000 NORTH BROADWAY • ST. LOUIS 15, MISSOURI



BREAKING OF LIGHT BEAM actuates indication lamp informing towerman that a high load has passed.



HIGH LOADS like this travel safely now.

NYC's 'Electric Eye' Detector Catches High Loads at Buffalo

An electric eye load detector costing less than $500 in materials is being used by the New York Central on its main line entering Buffalo, N.Y., from the west. Purpose of the detector is to catch high loads in time to reroute them around a low-clearance bridge a short distance east of the road's Bay View tower.

The device has been operating successfully for several months, long enough to prove its value. The road is now planning to install additional detectors at other points on the system.

Behind the present unit lies this story: A while back a high load was received in interchange for movement east via NYC. The top of the load collided with the overhead bridge near Bay View tower, derailing the train, blocking the line and damaging the bridge structure. Investigations suggested the need for some kind of detector to prevent recurrence, and R. L. Straw, communications engineer, designed the electric eye unit. Mr. Straw works under the jurisdiction of P. S. Hughel, superintendent of communications.

The device consists of two light sources mounted on crossarms of a telephone pole opposite the interlocking tower at Bay View. The sources send light beams horizontally across the tracks toward photoelectric cells mounted in the tower windows.

The two beams are 15 ft 10 in. and 17 ft. 6 in., respectively, above the tops of the rails.

A high-load car passing the tower will interrupt one or both light beams, depending on load height. Interruption causes a buzzer to sound and a light to flash on the operator's desk—an amber light in case the lower beam is interrupted; a red lamp if the upper beam is interrupted.

The light or lights remain on and the buzzer continues until the operator presses a reset button.

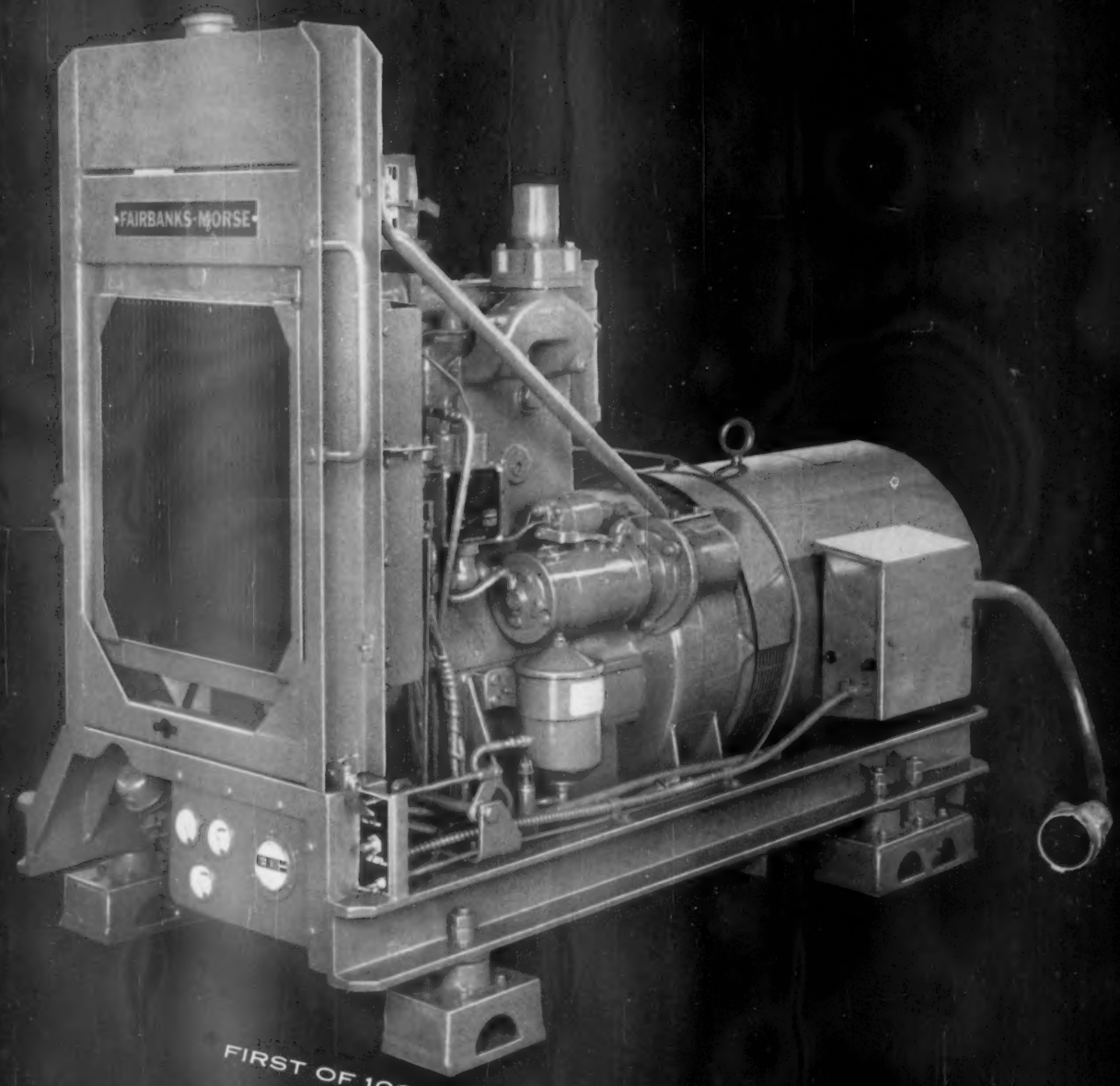
When a high load on an eastbound train is detected, the Bay View tower operator phones the dispatcher informing him of the height detected, and the train is rerouted to protect the high load.

Meanwhile, the operator at the tower merely presses the reset button to clear the device.

The electronic eye detector is set up to monitor eastbound loads only because yarding operations in Buffalo could be expected to catch any westbound cars on which clearance would be a problem. A westbound car does trip the device, but this merely notifies the operator to reset the detector.

The system is tested once during each trick by operating a toggle switch that cuts off the light source to activate the buzzer and alarm lights.

NYC officers say the 'eye' has detected a number of marginal high loads since it was installed. By doing so, it has successfully passed its test period and is now "in service."



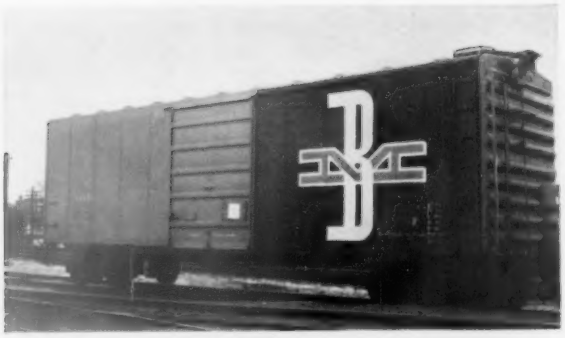
FIRST OF 100 F-M REEFER UNITS FOR

One hundred of these Model 45 Diesel Generator reefer units are going into service with the Santa Fe Railroad, as Fairbanks, Morse continues its service to the railroads of America.

Santa Fe

Fairbanks, Morse

A MAJOR INDUSTRIAL COMPONENT OF **FAIRBANKS WHITNEY CORPORATION**



N-S-F® EQUIPPED CARS DELIVER SACKED GOODS FREE OF RIP DAMAGE

One false move on a rough cargo-worn freight car floor is all it takes to rip the profit out of sacked goods.

It's happened! But not to Union Carbide Plastics Co., a division of Union Carbide Corp., of Bound Brook, N. J.—because the Boston & Maine carries their sacked goods in cars equipped with NAILABLE STEEL FLOORING by Stran-Steel.

In the words of Union Carbide's Traffic Representative:

"We are always glad to have cars with Stran-Steel flooring spotted on our siding. It means safe handling for our plastics."

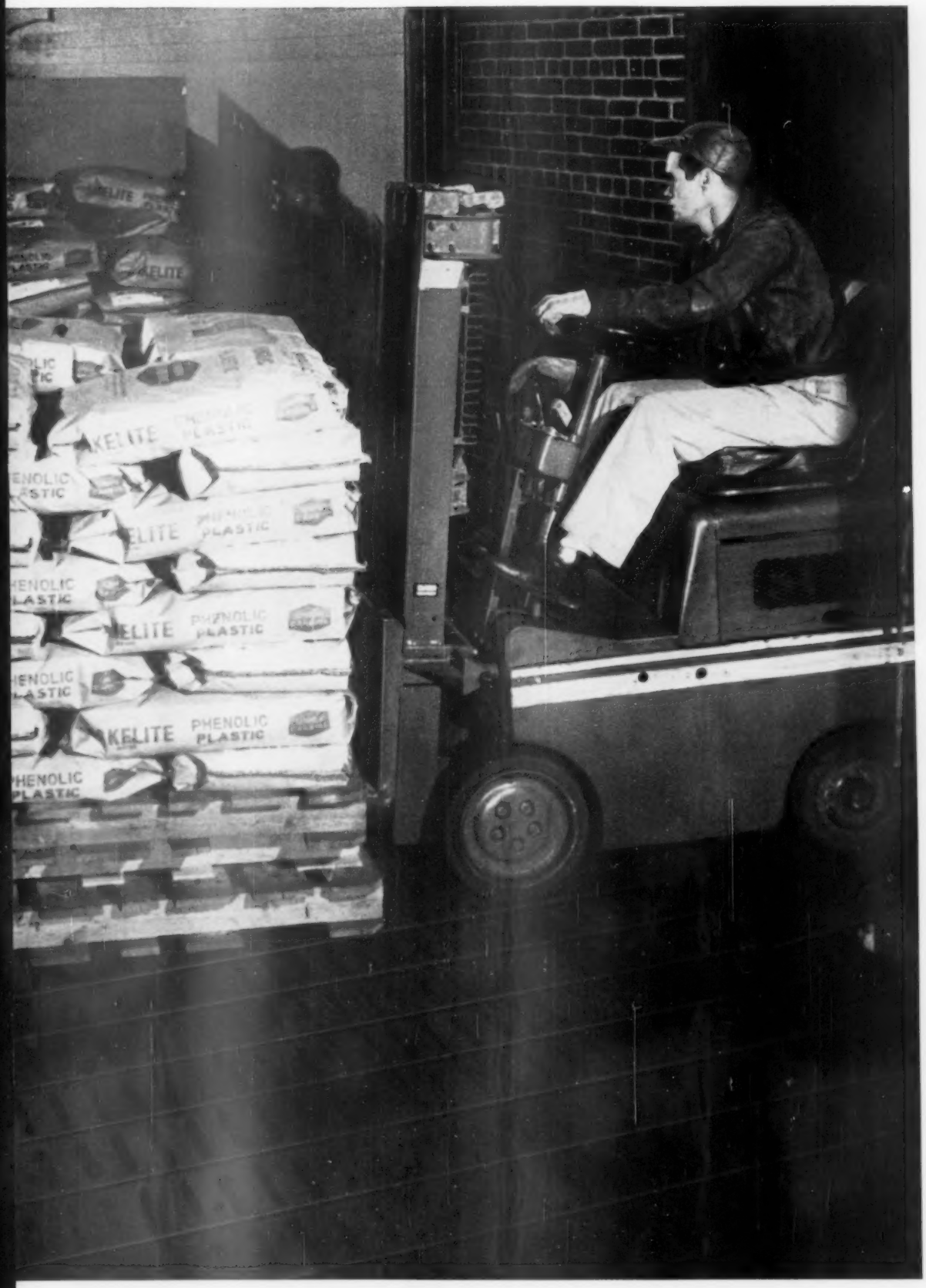
No wonder the Boston & Maine banks on N-S-F to reduce cargo damage claims. What's more, N-S-F adds longer in-service life to B & M rolling stock because it actually gives structural strength to critical underframe parts. Results: more class A cars available more often for more kinds of lading.

Seventy-five top-ranking railroads and their customers look to over 75,000 N-S-F equipped cars now in service for sound en route lading protection. They know that sacked goods are safe from rip damage, that patented nailing grooves allow travel-firm blocking of heavy lading; that even fine bulk cargoes are shipped securely, because N-S-F stays tight.

Full information and cost studies on the use of NAILABLE STEEL FLOORING in freight cars are readily available through Stran-Steel representatives in Chicago, New York, Philadelphia, St. Louis, San Francisco, Minneapolis and Atlanta. In Canada, N-S-F is made and sold by International Equipment Co., Ltd., Montreal. Stran-Steel Corporation, Detroit 29, Mich.

Stran-Steel® N-S-F

STRAN-STEEL IS A DIVISION OF **NATIONAL STEEL CORPORATION**


KELITE
PHENOLIC
PLASTIC

At San Francisco

SEE NEW

20" travel hydra-cushion flat car & D.F. box car track exhibit spaces 29 & 30

At the track exhibit of the 1960 A.A.R. Exposition you'll see not one, but two Hydra-Cushion cars . . . this DF box car and a new 20-inch travel Hydra-Cushion Flat car designed especially for the transport of missiles or rockets and all types of bulky, fragile freight, lading that requires the utmost care in handling and shipment.

Don't miss seeing these cars — Track Exhibit Spaces 29 and 30 on Track 10 at the A.A.R. Mechanical Exhibit in San Francisco June 13, 14, 15 and 16.

hydra-cushion INCORPORATED

Plymouth
Michigan

420 Lexington Avenue
New York 17, N. Y.

MARKET OUTLOOK *at a glance*

Carloadings Drop 10.3% Below Previous Week's

Loadings of revenue freight in the holiday week ended June 4 totaled 574,301 cars, the Association of American Railroads announced on June 9. This was a decrease of 66,087 cars, or 10.3%, compared with the previous week; a decrease of 106,316 cars, or 15.6%, compared with the corresponding week last year; and a decrease of 39,080 cars, or 6.4%, compared with the equivalent 1958 week.

Loadings of revenue freight for the week ended May 28 totaled 640,388 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, May 28

District	1960	1959	1958
Eastern	93,661	103,256	78,852
Allegheny	112,262	131,691	91,275
Pocahontas	55,708	55,322	45,242
Southern	116,682	112,994	97,916
Northwestern	103,820	113,023	74,535
Central Western	110,455	119,230	99,483
Southwestern	47,800	51,547	42,476
Total Western Districts	262,075	283,800	216,494
Total All Roads	640,388	687,063	529,779
Commodities:			
Grain and grain products	45,417	49,984	45,114
Livestock	4,581	5,069	4,512
Coal	109,831	110,713	95,991
Coke	7,863	11,101	4,959
Forest Products	39,551	41,382	32,262
Ore	73,205	76,651	39,346
Merchandise l.c.l.	36,347	41,815	38,208
Miscellaneous	323,593	350,348	269,387
May 28	640,388	687,063	529,779
May 21	636,808	686,152	570,425
May 14	639,954	692,996	561,040
May 7	641,703	678,160	535,579
April 30	643,271	676,194	533,205
Cumulative total, 21 weeks	12,626,113	12,881,753	11,340,570

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended May 28 totaled 11,560 cars, compared with 8,541 for the corresponding 1959 week. Loadings for 1960 up to May 28 totaled 221,663 cars, compared with 159,564 for the corresponding period of 1959.

IN CANADA.—Carloadings for the seven-day period ended May 21 totaled 78,836 cars, compared with 77,371 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
May 21, 1960	78,836	26,423
May 21, 1959	73,223	27,039
Cumulative Totals		
May 21, 1960	1,357,938	586,445
May 21, 1959	1,362,168	559,651

New Equipment

PASSENGER-TRAIN CARS

► *Milwaukee.*—Ordered 8 double-deck cab control and 32 double-deck trailer type suburban coaches from Budd at a cost of approximately $7,000,000. Stainless steel cars will feature electric air conditioning and heating, with power provided by generators to be installed on suburban diesel locomotives. Deliveries will begin within 10 to 12 months and will be completed within an additional three-month period. Order is the first step in a modernization program which will eventually include purchase of 75 double-deck cars to replace all conventional suburban coaches now in service (RA, June 6, p. 40).

LOCOMOTIVES

► *Texas & Pacific*—Purchased five 1,800-hp GP-18 road-switchers.

FOREIGN

► *Australia.*—Victorian Railway Commissioners have outlined a 10-year, $225 million development and rehabilitation program, subject to government approval on a year to year basis, according to Foreign Commerce Weekly. New equipment provided for includes diesel locomotives, $25 million; rail cars and coaches, $22.5 million; and new suburban trains.

► *Vietnam.*—Will use proceeds of a $9.7 million loan from the Development Loan Fund to purchase (in the U. S.) 23 diesel electric locomotives; four first class coaches; 26 third class coaches; 25 freight cars; four baggage-mail cars; and three sleeping cars.

New Facilities

► *Canadian National.*—Has awarded the contract for a new car repair shop at its $15-million Moncton electronic classification yard to Ellis-Don Ltd., of Halifax. The contract embraces all interior construction including the laying of floors, erection of offices and installation of auxiliary facilities. The 360-ft by 170-ft prefabricated steel building will include a 30-ft extension of concrete block construction.

► *Northern Pacific.*—Will replace bridge at Cabin Creek, Wash., at a cost of $140,000. Structure was damaged by high water last November. Other NP projects involve expenditure of $700,000 in 1960 on three-year program to rebuild 50 piers and shift girder spans on bridge at Sand Point, Idaho (RA, Jan. 18, p. 118); $90,000 for construction of additional TOFC facilities and relocation of team tracks at Seattle, Wash.; $236,070 as 1960 project cost of continuing program to abandon power plants and modernize heating, water and compressed air facilities at 24 terminals.

► *Western Pacific.*—Directors approved purchase of 143 acres for future industrial development on main line west of Salt Lake City.

Timken Wins Golden Spike Award

Norman Peterson (fourth from left), advertising manager of Timken Roller Bearing Co., displays 9th Annual Golden Spike Award presented to his company by the Association of Railroad Advertising Managers. Award goes to "the advertiser outside the railroad industry who is believed to have made the most outstanding contribution to a better understanding and appreciation of American railroads." Pictured, left to right, are Leonard B. Faupel, advertising manager, P. Ballantine and Sons, winner of a Certificate of Merit; George Timinsky, sales division manager, R. J. Reynolds Tobacco Co., Certificate of Merit; Eve Headley, E. F. Hutton and Co., Certificate of Merit; Mr. Peterson; Darrell Canady, Minneapolis-Honeywell Regulator Co., Certificate of Merit; Ralph Markham, Savings Bond Division, U.S. Treasury Department, Special Merit Award. Not represented in photo is General American Transportation Corp., winner of a Certificate of Merit.

Surface-Mail Airlift Rapped

Thousands of smaller communities would suffer from "the rankest sort of discrimination" if a Post Office Department plan to fly more surface mail between major cities becomes effective. Moreover, the flying of surface mail at regular, non-air-mail postage rates inflates postal operating costs which must ultimately be borne by the American public.

These points were made, in turn, by Herbert B. Brand, director of the AAR's railway mail transportation division, and Fred Carpi, vice president of the Pennsylvania, in testimony last week before the House Committee on Post Office and Civil Service. They opposed pending bills which would authorize extension of the Post Office's present "airlift" of surface mail.

Mr. Brand challenged Post Office claims that the public wants its 4-cent mail flown. Except as to the offshore points of Hawaii, Alaska and Puerto Rico, there is "no evidence of such demands," he said. The AAR official urged enactment of other pending bills to end the present airlift "experiment."

PRR Vice President Carpi said the extension proposal would deny the public a clear choice between 4-cent and 7-cent mail service. "The American people," he also said, "are sensible enough to know that if they want a faster and more expensive service, they are the ones who ultimately will have to pay for it. What the post office proposes is to compel them to take a faster, more expensive service whether they want it or not."

Mr. Carpi also pointed out that mail pay is a major consideration in continuing operation of many deficit passenger trains. And he warned that the Post Office's plan to divert additional first class mail from the railroads would accelerate the decline in passenger service "at a rate which has never before been seen in this country."

New Centers Locate And Expedite Pennsy Cars

Transportation Information Center (TIC) and Transportation Operations Center (TOC) are the twin elements of a new PRR project to give customers better freight service. TIC locates cars for the Pennsy faster and more efficiently than has been possible before, and TOC makes it possible to assure on-time delivery of rush shipments even when unforeseen situations arise.

"We refer to the new centers as TIC and TOC," said PRR Vice President Fred Carpi, "because of their initials and because they symbolize the clock-like precision we have as a goal for the important place these forward-looking projects have in our customer service program."

The new bureaus are based in Philadelphia and are operating day and night, seven days a week.

Inquiries about location of shippers' cars still go to local offices, both on and off line. Queries are transmitted, by teletype and telephone, to Philadelphia, and information is promptly returned to the shipper through the local office. This procedure keeps local agents informed of shippers' problems, and also provides the speed and efficiency of a centralized bureau.

TIC serves as a master car-locating bureau, supplementing the system-wide passing report of freight trains. This report goes out to PRR sales offices by Teletype approximately every two hours each day. If a sales office needs more precise information, a wire or phone query to TIC brings immediate information as reported by the various yard offices.

TOC offers a means of following "hot" freight, such as a carload of merchandise shipped for a specially advertised sale. When TOC has been requested to follow a car, it makes a specific check of its progress every eight hours until it is delivered. TOC can, if necessary, Mr. Carpi said, expedite a car by putting it in a faster train, even though the shipment does not normally fit the train's classification—as with a carload of furniture in the normally all-piggyback TrucTrain.

TOC also watches closely cars shopped for repairs while carrying important loads, Mr. Carpi said. When information is received from TIC that a car is in for repairs, TOC takes over and arranges to have the car moved in the first available train after repairs are completed.

The new services are geared particularly to shipments requiring special attention, Mr. Carpi said, but they have "contributed to the smoother functioning of our entire freight operation."

"Safety" POWER and CONTROL SYSTEMS

...Unequalled Performance...Low Cost Maintenance

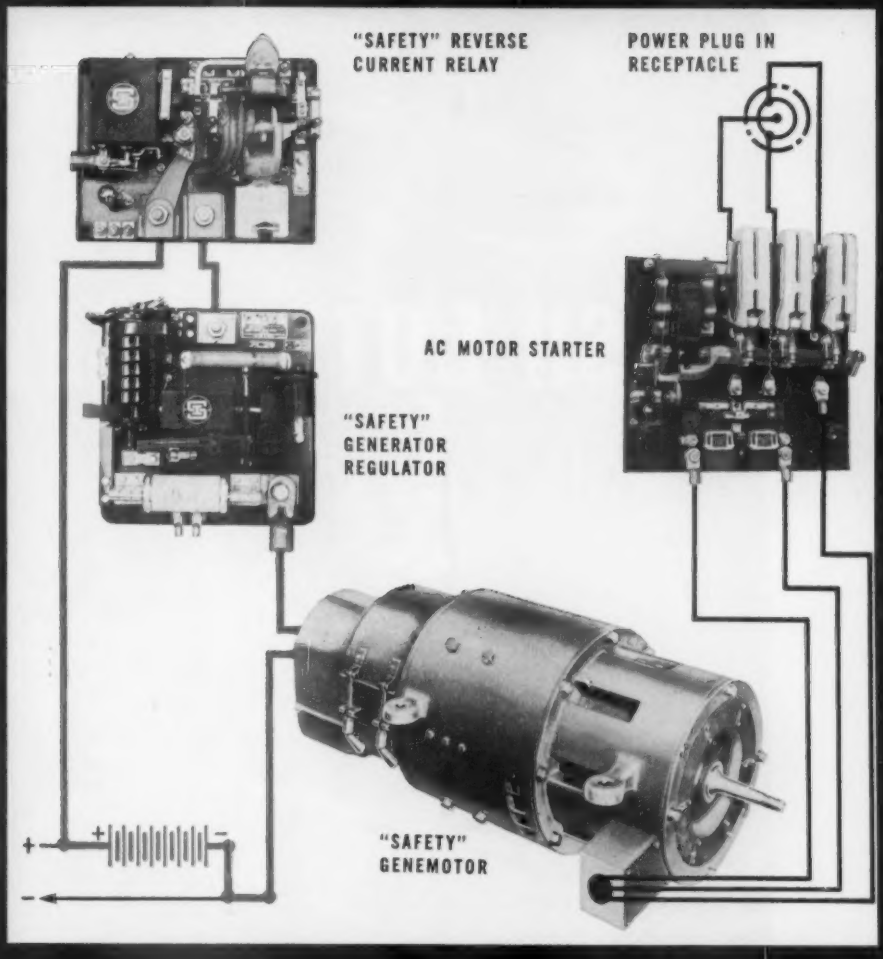
"SAFETY" GENEMOTORS...

are unsurpassed power plants for modern passenger cars.

Designed and precision manufactured for long life with low cost maintenance . . . "Safety" Genemotors include . . .

- liberal use of armature copper and low loss iron to keep electrical losses . . . therefore heating . . . at a minimum
- armatures insulated with Class B material and mounted on shafts of the best alloy steel procurable
- dc armature, ac rotor and cooling fan easily removable as independent units
- all parts dynamically balanced individually before assembly on the shaft . . . assuring full interchangeability
- an automatic polarity reversing switch . . . eliminating maintenance of an additional generator necessary when an exciter is used

"Safety" Genemotors are available in capacities of 25, 30 and 35 kw and in 40, 60 and 140 volts nominal ratings, with 20 or 32 HP AC, 60 cycle, 220 volt motors . . . 12 to 20 kw output on standby.



"SAFETY" CONTROL EQUIPMENT...

- provides constant voltage regulation and positive current limit for maximum Genemotor protection
- lengthens battery life
- is compact and automatic
- requires minimum locker space
- is simple in design . . . requiring little maintenance . . . thereby reducing labor costs

"SAFETY" GENEMOTORS and CONTROL EQUIPMENT PROVIDE...

- constant voltage power for all air conditioning electrical equipment and lighting
- full output at very low train speeds . . . assuring quick power availability for re-charging low batteries while cars are enroute
- standby power in excess of requirements for pre-cooling cars and battery charging

Over 5,000 "Safety" Genemotor and Control Equipment applications on railroads throughout the United States, Canada and Mexico are actual proof of unparalleled performance in service.

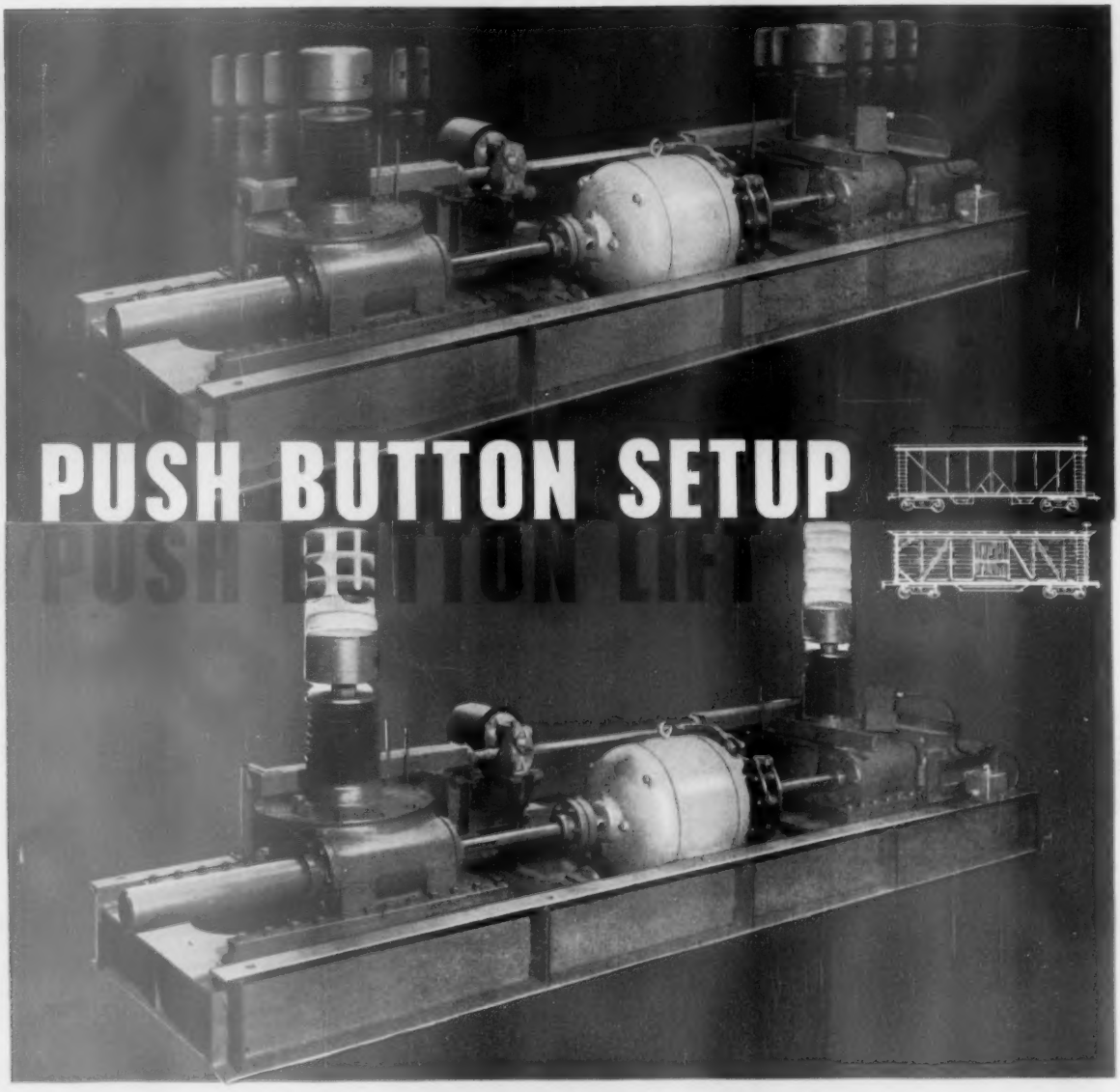
Safety ELECTRICAL EQUIPMENT CORP.

FORMERLY ELECTRICAL DIVISION OF SAFETY INDUSTRIES, INC

NEW YORK · CHICAGO · PHILADELPHIA · RICHMOND · ST. LOUIS · SAN FRANCISCO · NEW HAVEN · MONTREAL

Factory and Office 1187 DIXWELL AVE NEW HAVEN 14, CONN

"SAFETY PRODUCTS INCLUDE: Air-Conditioning Equipment ● Genemotors ● Generators ● Fans ● Regulators ● Blower Units Switchboards ● Motors ● Motor Alternators ● Dynamotors ● Motor Generators ● Dual Voltage MG Sets



Rip track operations swing into high gear with the Whiting Ripjack. Touch one button, Ripjack adjusts to car width. Touch another, the two-speed jacks with their mighty electric muscles lift 40 tons each, hoisting fully-loaded cars. Push-button speed means labor costs drop. Car downtime decreases. Bad order cars often return to their own train. Freight delivery accelerates. Handles fish belly or other special cars, too. Push button speed has a place in your profits. Call Whiting about Ripjack!

FREE BOOKLET . . . Describes cost-cutting combination; Ripjack speeding car maintenance, Whiting Trackmobile—which runs on rail *or* road—speeding car movement. Write for Bulletin RJ-C-100. ***Whiting Corporation, 15603 Lathrop Avenue, Harvey, Illinois.***

COST-SAVING EQUIPMENT...THE WAY TO HIGHER PROFITS

RAILROAD EQUIPMENT

WHITING

MANUFACTURERS OF CRANES; TRAMBEAM HANDLING SYSTEMS; TRACKMOBILES; FOUNDRY, RAILROAD, AND SWENSON CHEMICAL EQUIPMENT

You Ought To Know...

World's largest tank car, Union Tank Car Co.'s "Hot Dog-30," will be on display at the meeting of the AAR Mechanical Division in San Francisco June 13-16. The 85-ft, 30,000-gal. car is one of two leased to Tuloma Gas Products Co. for transporting L-P gas. Utilizing Union's "HD" design principle, the car is constructed with draft sills integrally attached to the tank shell in place of the conventional full-length underframe.

Rates based on costs rather than on value of commodities have been urged on Canada's Royal Commission on Transportation. The new freight rate structure was proposed last week by the government of British Columbia, which contended it would "help alleviate many current problems of railways and shippers." The brief also recommended that passenger fares be tied to actual costs of operating passenger trains on individual runs.

Further expansion of PRR's Truc-Train service is slated for this month. Plan III service will begin between New York and Louisville and New York and Pittsburgh. Plan I service will be expanded to include operations between New York and Dayton. In making the announcement, PRR said Truc-Train revenues this year will hit $20 million, a 35% increase over 1959.

A federal court has denied railroad motions for dismissal of Riss & Co.'s $90-million anti-trust suit. The complaint is against 23 major railroads, four railroad associations and the public relations firm of Carl Byoir & Associates. It alleges that the defendants conducted a propaganda campaign to drive Riss out of the business of trucking ammunition and other explosives.

Six-mile subway extension to Philadelphia's Broad street subway is recommended in an engineering study made public last week by the city's Commissioner of Public Property. Planning for the project would begin in 1963 with an initial $6 million appropriation, with construction to begin in 1965. Total cost: $65 million, including 100 new cars. Need for the line, which would parallel Reading's Fox Chase line, is shown by the 275% increase in Fox Chase riders under city-sponsored "Operation Northeast," the report said.

Subsidized Seaway service was the center of interest before the Federal Maritime Board last week. Grace Line, which has had one year's experience with subsidized operations from the Great Lakes to the Caribbean, wants to drop the service on the grounds that it shows no signs of ever becoming profitable. A special FMB report says the service should be continued because a year's experience is not enough to prove the service hopeless and because Grace Line made money over-all on its subsidized operations. FMB's decision, when it comes, is expected to set a precedent on the requirements entailed by subsidies.

Joint rail-air service for passengers between London and Paris has been announced by British Railways, French National Railways and Silver City Airways. The six-hour trip is by train for all except a 20-minute cross-channel flight.

Univac III, a new computer system just announced by Remington Rand, Division of Sperry Rand Corp., will be leased by C&O in 1962. C&O at present uses a Univac I in Cleveland on a round-the-clock basis, also uses 16 hours' time daily on Univac I equipment at Case Institute of Technology in the same city.

Monon's "Trailer Maid" (TOFC) Plan I services have been expanded to serve points between Indiana and Kentucky, Tennessee, Alabama, Louisiana, Florida and Georgia. Monon now offers shippers all but Plan IV piggyback service.

The railroading world "is more gloomy to outsiders than to many in the profession," says Investor's Reader in a special 40-page issue devoted to railroads. The Merrill Lynch, Pierce, Fenner & Smith magazine says, "Railroad men know they have problems. But a spirit of determination persists. Developing new business is vital. But even more important is to find ways to cut expenses, for only economies will permit the rates needed to attract new business."

Extension of the bulk-commodity exemption to railroads is now proposed in a Senate bill which Senator Magnuson of Washington, chairman of the Interstate Commerce Committee, has introduced "by request." The exemption frees from regulation the transportation by water of commodities in bulk. A bill to repeal it was introduced by Senator Magnuson some time ago—also on the "by request" basis. The extension proposal thus gives Congress a choice of ways to end the regulatory inequity involved. Similar bills have been introduced in the House.

Reductions of up to 60% in Railway Express rates on 100-lb shipments of automobile, truck and trailer parts, including tires, tubes and treads, are scheduled to become effective June 14. The same tariff provides for smaller percentage reductions on shipments of less than 100 lb. The new rates apply nationwide, excluding Alaska and Hawaii; only exceptions are a few items of low weight-density. Typical reduction, on 100 lb Detroit to New York—$6.94, computed by subtracting the new rate of $4.63 from the former $11.57 charge.

"Offensive to the parties concerned" is how the Central Western Shippers Advisory Board defines "featherbedding" in a resolution adopted at the board's latest meeting, held at Sun Valley, Idaho. The Railway Labor Executives' Association interprets the board's action as "condemnation" of "railroad management's propaganda campaign" as "a colossal blun er."

(Continued on following page)

You Ought To Know CONT

C&O's offer to acquire control of the B&O through an exchange of stock (RA, May 23, p. 9) has been formally presented to B&O stockholders by President H. E. Simpson. Under this proposal, and pending a second step toward merger, the two companies would continue to operate separately. But because the C&O and B&O "complement each other in important respects, there will be many opportunities for closer coordination in operations, resulting in improved services to our customers and benefits to our employees and owners," said Mr. Simpson.

Subsidy is the only alternative to the discontinuance of "losing passenger services," says CNR Vice President D. V. Gonder. He told an Amherst, N. S., audience that it's "just not fair that railway freight services and other essential passenger runs should be burdened with the additional costs that these unnecessary services generate."

Experimental "Monotrack" system is now being tested at Chateauneuf-sur-Loire, France. Unlike other suspended monorail systems (RA, Feb. 29, p. 36), Monotrack suspends the car from rubber wheels riding on dual tracks. The rolling gear is enclosed on the top and sides by the track shell, which is a hollow, welded steel beam.

Transportation to Alaska and Hawaii should flow more easily, the Transportation Association of America thinks. TAA has adopted a new policy calling for a three-member joint regulatory board to set up on a permissive basis through routes and joint rates between the two newest states and the other 48. TAA proposes one member each from the ICC, CAB, and Federal Maritime Board. The subject is now being deliberated in Congress where the Senate has passed and sent to the House S-2452 providing for joint through rates.

An optimistic outlook for third-quarter freight traffic in Allegheny Shipper Board territory—at least as compared with last year's steel-strike-depressed business—is predicted in the board's carloading forecast. Indications are, the board says, that territorial loadings of basic commodities in the July-September period will total 578,266 cars, up 125,080 cars, or 27.6%, from last year's actual loadings. Most of the increase, of course, is expected to come in steel or steel-related commodities, such as coke, coal, ores and lime.

A Section of Hearings in the Bureau of Rates and Practices has been established by the ICC. All hearing examiners in the bureau have been assigned to the new section. Chief hearing examiner will be Walter D. McCloud.

Increased passenger traffic has helped the Long Island offset a drop in freight revenues. LIRR gross revenues in April were $5,894,144, compared with $5,749,807 in April 1959.

Passenger preferences in window glass are being tested on a New York Central commuter coach. Panels of tinted, heat-resistant glass have been installed alternately with panels of the clear safety glass now in use. Commuter comments will help guide the NYC in any future acquisition of passenger cars.

The formal application of the Chicago, Aurora & Elgin to abandon its entire line was dismissed by order of the ICC, division 4. Examiner Lester R. Conley held that the CA&E Railway Corporation had not completed acquisition of the property of the CA&E Railway Company as authorized under a petition to reorganize filed in December 1958, and that the Railway Company had, in fact, already abandoned the line. Thus, said Conley, neither the Railway Corporation nor the Railway Company was a proper applicant for abandonment. He further recommended the ICC Bureau of Inquiry and Compliance investigate the corporation's failure to comply with the provisions of the Interstate Commerce Act.

C&O is adding a mail-express-passenger train to its timetable. Train 19-20, consisting of mail and express cars, Railvans and one passenger coach, will operate between Detroit and Grand Rapids, Mich. Railvans will be hitched to trucks at Grand Rapids for the highway journey to Muskegon, Mich.

Exhibits planned at Chicago's new Exposition Center in conjunction with the June 1961 AAR Mechanical Division and Electrical Section meetings have been cancelled by the Railway Supply Manufacturers Association. RSMA says future exhibit plans are indefinite. The Sept. 10-13, 1961, Coordinated Mechanical Associations meetings in Chicago will be supported by ARSA exhibits and track show. P&S Division has changed its meeting dates from June to September to take advantage of the exhibits.

Remote Control?

Canadian newspapers have been talking about "experiments that might lead to remote control operation of locomotives in freight yards." These experiments, published reports say, are to be started soon at London, Ont., under the auspices of General Motors Diesel, Ltd.

Canadian National, which is reported to be furnishing a diesel-electric locomotive and a section of test track, says only that "General Motors Diesel, Ltd., is conducting an experimental study of the application of new electronic devices to train operations.

"The study includes tests to be made during the month of June using a Canadian National diesel-electric locomotive over a section of CNR track in Ontario," the railroad's statement continues.

"Aim of the tests is to gain additional information about the potential of the latest developments in electronic and electrical engineering.

"The experiments are designed to assist the work of the man in the locomotive cab and provide additional safety devices.

"Participating in the project, besides General Motors Diesel, Ltd., and Canadian National, are Westinghouse Air Brake Co. and the General Railway Signal Co."

Advertisers' Index

Adams & Westlake Company 84
Ajax Consolidated Company 81
American Brake Shoe Company 32-33
American SAB Company 4
Automatic Electric Sales Corp. 22-23

Bendix Aviation Corp., Scintilla Div. 79
Buckeye Steel Castings Company 72
Budd Company 28-29
Buffalo Brake Beam Company 12-13

Cardwell-Westinghouse Company 6
Caterpillar Tractor Company 51
Conveyor Company, The 90
Curtiss-Wright Corp., Princeton Div. 83

Davis, S. M. 105

Edgewater Steel Company 20-21
Electro-Motive Division GM Corp. 76-77
Erman-Howell Division Luria Steel & Trading Corp. ... 105
Exide Industrial Division Electric Storage Battery Co. .. 54

Fairbanks Morse & Company 95

Galv-Weld Products 105
General American Transportation Corp. 27
General Electric Company 24-25, 48-49
General Steel Castings Corp. 11
Gould-National Batteries Inc. 92
Greenville Steel Car Company 75

Hyatt Bearings Division GM Corp. 85
Hydra-Cushion Division Waugh Equipment Co. 98

International Steel Company 37

Koppers Company, The ..... Inside Front Cover

Magnus Chemical Company 87
Magnus Metal Corp. 16-17
McGraw Edison Company Storage Battery Division 44-45
Miller Lubricator Company 71

Morrison International Corp. 91
National Malleable & Steel Castings Company .... 55-58 incl.
New York Air Brake Company 78

Peerless Equipment Company 31
Premier Manufacturing Corp. 38-39

Rail & Industrial Equipment Company, Inc. 105
Rail-Trailer Company 41

Safety Electrical Equipment Corp. 101
St. Louis Car Company 93
Servo Corp. of America 88-89
Shell Oil Company 52-53
Simons Company, Leonard J. 86
Sinclair Refining Company 68-69
Sperry Products Company 59
Standard Car Truck Company 3, 8
Stran-Steel Corp. 96-97
Stucki Company, A. 90
Symington Division, Symington Wayne Corporation .... IBC

Thermo-King Corp. 62
Timken Roller Bearing Company 60-61
Trailer Train Company 66-67

Union Switch & Signal Division
of Westinghouse Air Brake Company 64-65

Vapor Heating Corp. ..... Back Cover

Weiss Company, B. M. 105
Waugh Equipment Company 14
Whiting Corp. 102

Youngstown Steel Car Corp. 34

CLASSIFIED ADVERTISEMENTS

FOR SALE
REBUILT
RAILROAD CARS FOR INTERPLANT USE
GONDOLAS • BOX • FLAT
ERMAN-HOWELL DIVISION
LURIA STEEL & TRADING CORP.
332 South Michigan Avenue
Chicago 4, Illinois
WEbster 9-0500

MODERN G. E. RECTIFIERS
13,200 V. AC to 600 V. DC
4—1000KW Mod. 6RC-45-CD6 Auto Subs.
2—500KW Mod. 6RG-45-CH2 Auto Subs.
1948 Vintage still in like NEW condition. Can be inspected under power at Birmingham. Priced at $25 per KW (Less than ¼ replacement)
S. M. DAVIS
BOX 1407 E. ST. LOUIS, ILL.

WANTED
Sales and Service Field Engineers, preferably thoroughly experienced with either application or operation, repair and maintenance of M/W equipment. Resident territorial positions. Good Salary. Give detailed experience with references. Box 66, RAILWAY AGE, 79 West Monroe Street, Chicago 3, Illinois

FOR SALE
or
LEASE
CABOOSES
FULLY REPAIRED
RAIL & INDUSTRIAL EQUIPMENT CO., INC.
30 CHURCH STREET
NEW YORK 7, N.Y.
Plant: Landisville, Pennsylvania

MORT CLARK'S **GALV-WELD** ALLOY ORIGINAL & GENUINE
Lick underframe and all other corrosion problems forever with Genuine Galv-Weld. Easily applied. Write for details and free sample. GALV-WELD PRODUCTS, Dept. RA, P. O. Box 1303, Bradenton, Florida.

POSITION WANTED
14 yrs. major RR: 7 yrs. Supervisor heavy freight car repairs & mechanical operations receiving-dispatching yds. graduate-traffic & transportation. Foreign employment acceptable. Age 32 Box 932 Railway Age, 30 Church St., New York 7, New York

SALE OR RENT
1—45 Ton G.E. D.E. Loco.
1—65 Ton Porter D.E. Loco.
1—Betts-Bridgeford Axle Lathe
B. M. Weiss Company
Girard Trust Bldg.
Philadelphia 2, Pa.

Looking for a job?
Looking for a man?
use this space to
get reliable leads
quicker results
EMPLOYMENT OPPORTUNITIES
SECTION
Railway Age, 30 Church St., New York 7, N. Y.

How About Some More Freight Cars?

Railroads cannot afford *any* wage increase—but, if there is going to be such an increase anyhow, some fairly accurate idea of its magnitude is essential to forward planning.

Programs for needed freight car replacements (for example) have had to be held in suspense by most railroads until some idea of the wage bill in the next year or so could be determined. To the extent that current wage issues are concluded, then, railroads can estimate with some precision what their financial situation is going to be; and can proceed accordingly with plans for such car acquisitions as their means will allow.

Business prognostications are not infallible, but predominant informed opinion points to modest improvement in general business conditions this fall—coinciding with the time when traffic is ordinarily at its seasonal peak. Some car shortages could result—which are always undesirable, especially when railroads are seeking to improve the saleability of their service for competitive reasons.

There are other considerations, besides prospective traffic volume, that make car purchases at this time worthy of serious consideration. One is the possibility of an increase in steel prices around the first of the year. Maybe this won't happen—but, as Bernard Baruch has observed, smart men buy their straw hats in the fall.

Our information is that steel companies could now deliver steel for car construction in six weeks and that car plants could fabricate a sample car in four weeks. In other words, cars ordered now could be delivered in time to help handle this year's traffic.

Railroads can't spend money they do not have and can't borrow—any more than anybody else can. But there are quite a number of roads in position to proceed with their car-replacement programs once the figures point to the economic wisdom of such action. The pluses in favor of this action begin to outnumber the minuses, once a dependable estimate on wage costs is reached.

Railroads are short of capital funds, because too large a share of what they earn is taken away from them by the unions and by government. As long as this condition persists, the utmost in foresight in getting the maximum yield from all expenditures is essential. Buying in slack times is usually a certain means of economizing.

Cross Off the Box Car?

Piggyback traffic is growing great guns—leading some people to conclude (prematurely, we believe) that the box car has little future. Quite likely, box car traffic would be increasing, too, if it were receiving proportionately the same degree of attention that piggyback is getting.

The fact is that the economic advantage of the box car as a transportation tool is seldom systematically exploited. You take a box car with 22,000 lb in it, of a relatively high-density commodity—and you are using half a car in competing with a full trailer. The relative costs do not make the box car a very potent competitor, when it is handicapped by being only half-loaded.

The economics of the situation, however, have kindly arranged matters so that it costs a railroad very little more to move a fully loaded car than one only half-loaded. The shipper can be offered a discount on extra tonnage loaded in the car, which will sharply reduce total cost to him per ton shipped (thus strengthening the railroads' competitive bid for traffic); and, at the same time, the profit earned by the railroad per car will be increased.

Railroads in all rate territories are giving attention to wider application of various kinds of "incentives" to induce heavier loading per car—and pessimism about the box car while interest in this direction continues is not warranted.

It's hard for a box car to compete with piggyback and containers for off-track origins and destinations, and for shipments well under 30,000 lb. But there are still a lot of receivers and shippers who have railroad sidings, and who have shipments to offer which are much larger than 30,000 lb.

If the box car has rates to reflect its relative economy when well loaded, it can do a job of building siding-to-siding hauls of heavy loads—at the same time that piggyback and containers are doing the traffic-building job on the remainder of the business.

ONE OF THE WORLD'S BEST-TRAVELED LABORATORIES!... IN SERVICE SINCE 1928

Interior of a Symington test car equipped with vertical and lateral accelerometers (center foreground and center background). Weight blocks are changed for various loading conditions, truck action can be observed through floor windows at either end.

SYMINGTON TEST CARS HAVE LOGGED OVER 100,000 MILES TO BRING YOU IMPROVED TRUCK DESIGN

Symington's road test cars have chalked up more than a hundred thousand research miles, most of them in special trains running at speeds up to 90 mph. From this research has come constantly improved freight truck design offering reduced lading damage factors, higher practical speeds, and longer operating life with less maintenance.

Emphasis on research and development is a positive policy at Symington. It views the company's railway products not simply as castings—however impressive—but as components having definite functions to perform. Thus they are subject to continuous research and testing—to improve existing designs and to develop new ones. This policy is reflected in the more than 750 patents on railway equipment granted Symington to date. And of these, some 370 are currently unexpired.

DEDICATED TO PROGRESS
RPI MEMBER

THE Symington DIVISION

SYMINGTON-GOULD CORPORATION

WORKS:
DEPEW, N.Y.

New York
Chicago
Boston
Philadelphia
San Francisco
St. Louis

In Canada:
Adanac Supplies, Ltd.
Montreal, Quebec

here is your complete maintenance tool kit for Vapor Steam-Life metallic conduits

It's true—one 8" wrench to replace gaskets when necessary . . . without removing conduit from cars . . . maintains perfect steam tightness when conduits are Steam-Lifed!

AUTOMATICALLY CUT MAINTENANCE COSTS BY 50%: Vapor Steam-Life metallic conduits carry steam between engine and cars without expensive, time-and-profit-wasting removals for 24 to 30 months . . . allow pre-scheduled preventative maintenance.

don't repair conduits . . . Steam-Life them . . . and save!

Conduits can be Steam-Lifed in your own shop by ordering Kit No. 1164-301 for 2" horizontal conduits; Kit No. 1136-301 for 2" vertical conduits; Kit No. 1195-301 for 2½" conduits. Or, do as many others do—send conduits to Vapor and in return receive a Steam-Lifed conduit.

STEAM-LIFE®

VAPOR HEATING CORPORATION
80 EAST JACKSON BOULEVARD, CHICAGO 4, ILLINOIS